videogame

história e linguagem

pré-**história**

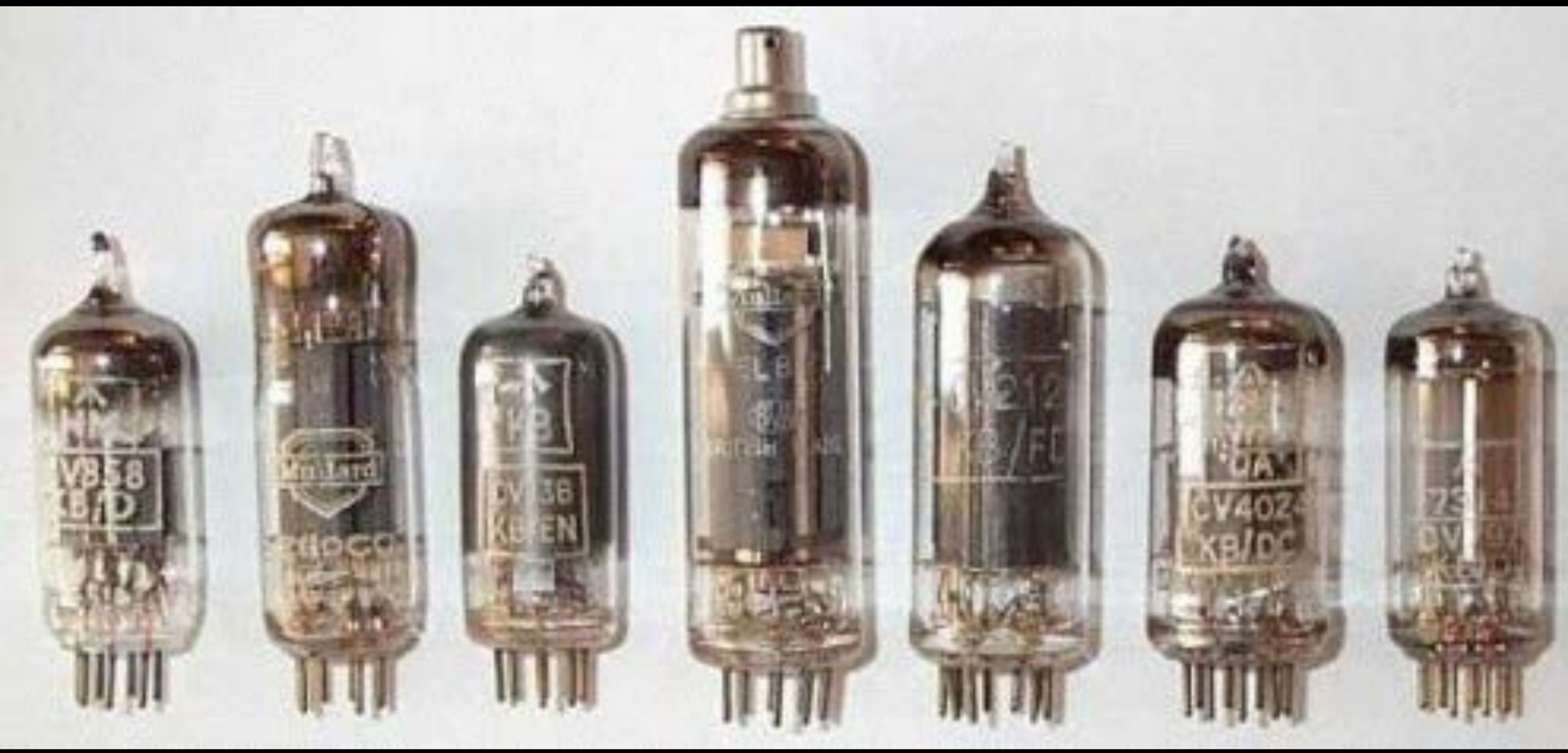
14/02/1946

primeira operação do primeiro computador programável:

ENIAC

Electronic Numeric Integrator and Calculator

multiplica dores
acumuladores
transmissor de constantes
unidade de divisão e raiz quadrada
painel de funções 2 e 3
painel de funções 1
program master
painel de funções portátil 1
leitora de cartões perfurados
perfuradora de cartões


VB38
5/D
CV4OZ
KB/DC

essas máquinas eram conhecidas como “giant brains”, pois os cientistas de computação da época sonhavam com a inteligência artificial

dentre esses cientistas estavam Alan Turing (matemático) e Claude Shannon (computação), que viam a IA como último objetivo da computação e sonhavam com o dia em que um computador venceria um humano numa partida de xadrez

por que um jogo?

o xadrez, apesar das regras relativamente simples, permitia uma variedade de situações em que mesmo um computador jogando um milhão de 10^{108} partidas por segundo levaria 10 anos para jogar todas as possibilidades

em **1947**, Alan Turing se torna a primeira pessoa a escrever um programa de computador para jogar xadrez

pena que seu código eram tão complexo que nenhum computador da época poderia rodá-lo. Turing morreu sem vê-lo executado :(

em 1951 a Ferranti constrói para Festival Britânico o primeiro computador criado para jogar um jogo:

NIMROD

em **1952**, **Alexander Douglas** escreveu como parte de sua pesquisa de doutorado (que versava sobre interação homem-computador) uma versão de **jogo da velha** para rodar em um computador **EDSAC**

onde tudo começou?

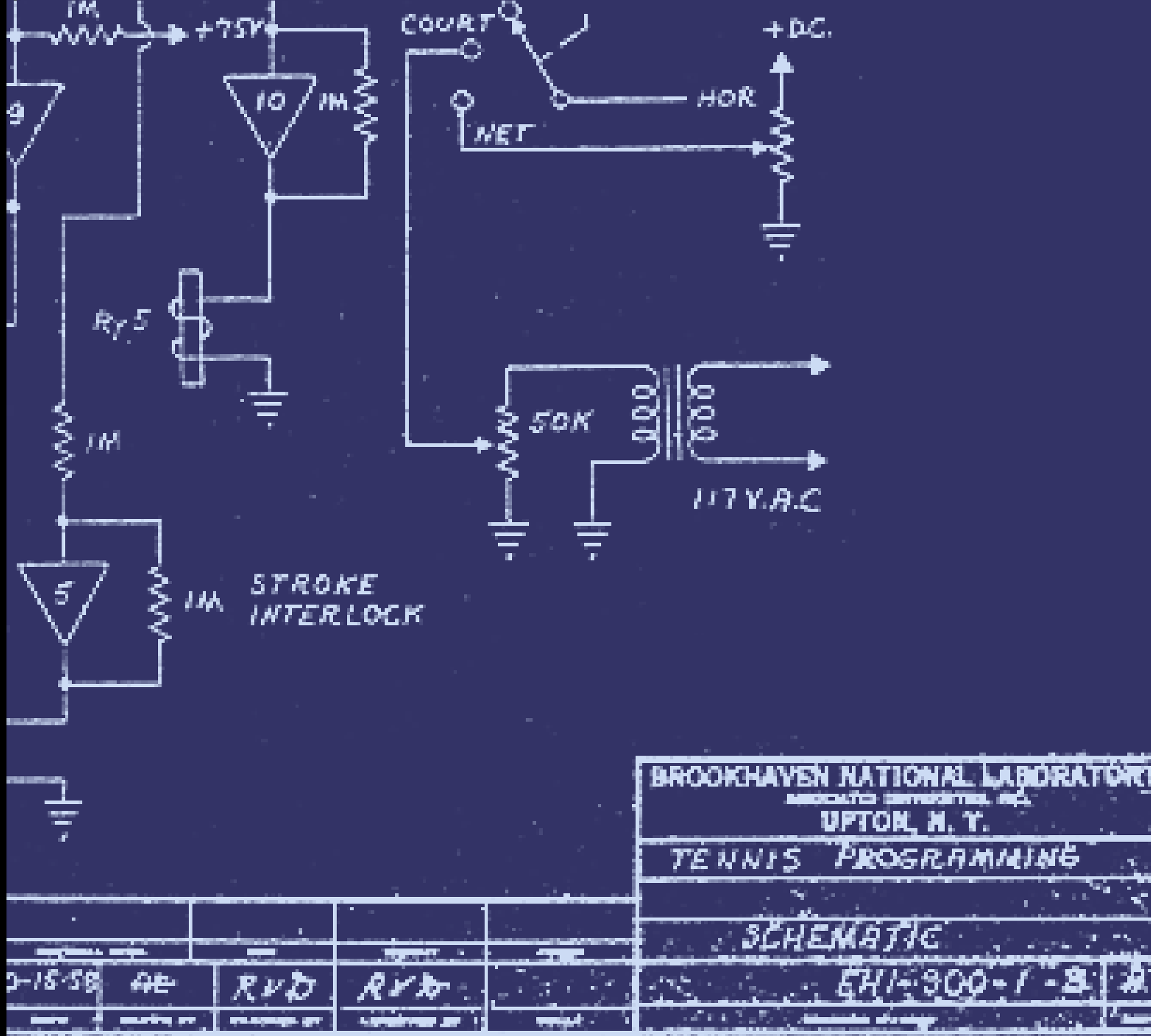
depdendendo do critério adotado

tennis for two

1957

william

higinbotham


1M
+75V
COURT
+D.C.
10
1M
HOR
NET
Ry 5
1M
50K
117 V.A.C
5
1M
STROKE
INTERLOCK
BROOKHAVEN NATIONAL LABORATORY
UPTON, N. Y.
TENNIS PROGRAMMING
SCHEMATIC
EHI-300-1-B
RVD
RVD

INSTRUMENTATION

LEFT
RIGHT

space war!

1962

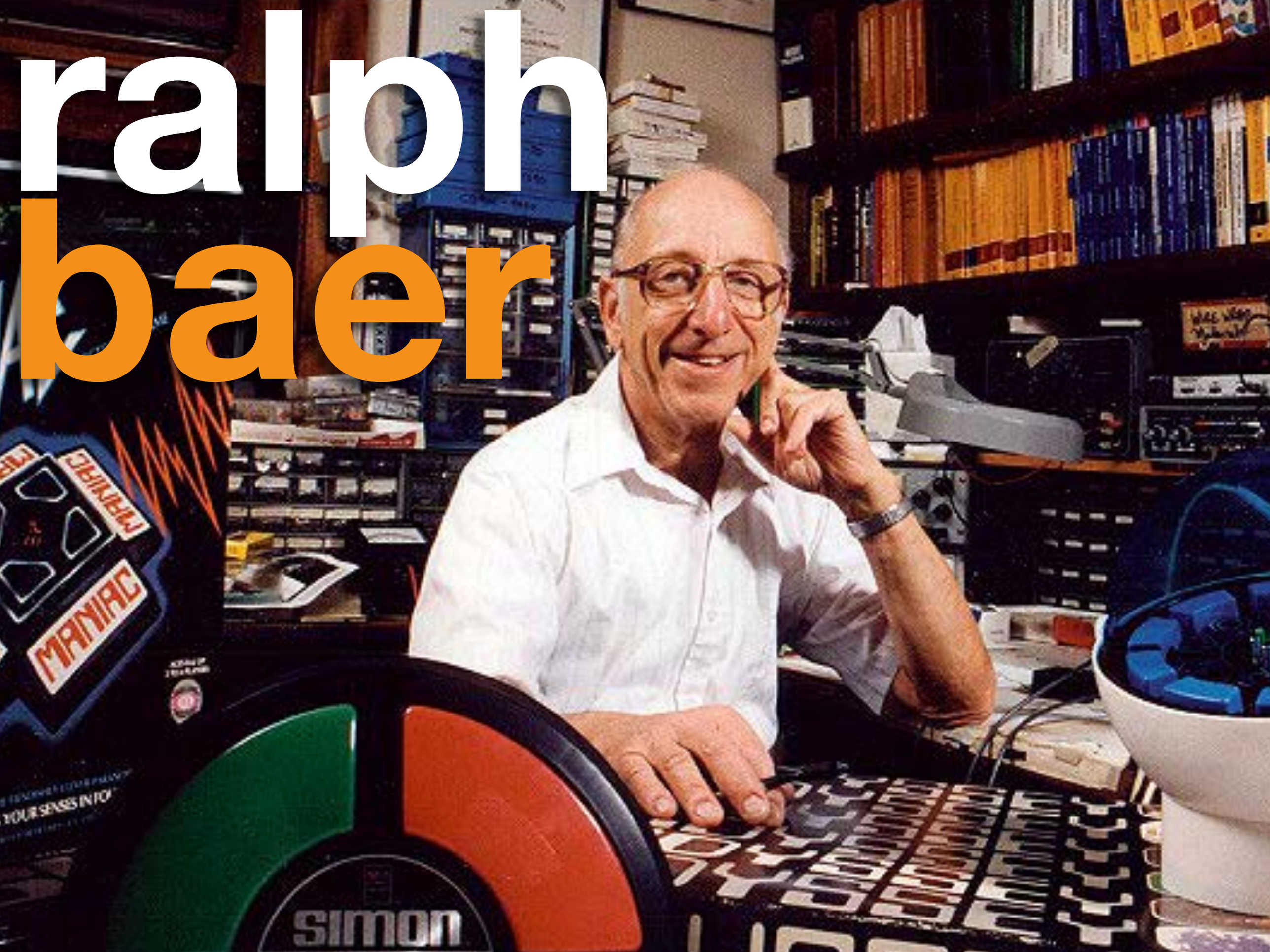
steve russell

Stephen Russell
Dan Edwards
Alan Kotok
Peter Sampson
Martin Graetz

odyssey

1971

ralph baer



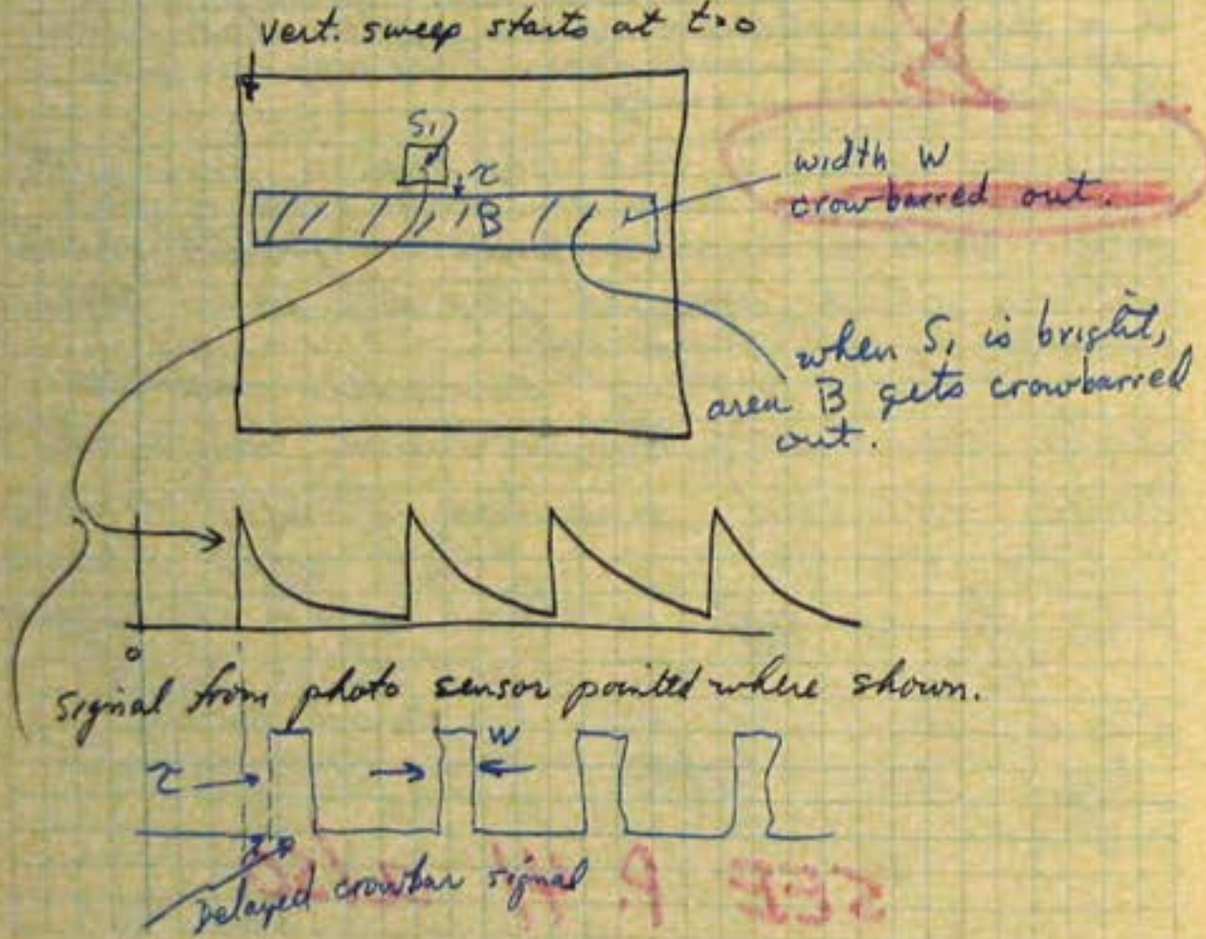
DATE 1-3-67 PROJECT NO. "Crowbar Feedback"

Use "light gun" to get signal from TV screen — then use gun output to crowbar (shoot out) signal into TV set — What do with this "crowbar" effect?

(question: when crowbar, does set go black or white (or neither?)

Put ONE SHOT in gun so crowbar for certain length of time.... while set crowbarred spot position may be changing (and change not seen by viewer)

Blot out horizontal sections of ~~set~~ picture:



DATE PROJECT NO.

Now by "skewing" aim of photo sensor, can get effect of blotting out area "aimed at." If can combine with (5,750, maybe blot out a spot instead of a bar.

Shooting Game — Use Hor. FF. when hit target it reverses direction — if keep hitting it can keep it relatively stationary — record # hits (stop when miss the first time) (Or, count to see how many reversals can get before miss)

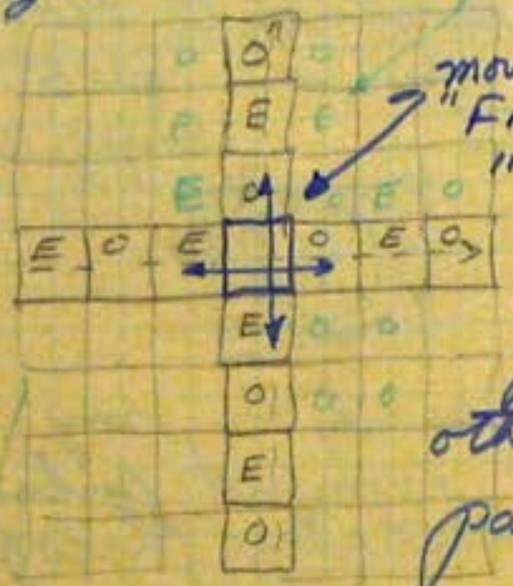
Witnessed and Understood (Minimum Two Signatures)
Signature Date
Signature Date
Witnessed and Understood (Minimum Two Signatures)
Signature Date
Signature Date

~~STRAIGHT~~ Through Crossing

1-15-68

ANSWER FOR Better Even-Odd Maze Game ~: The STRAIGHT Through CROSSING

needed for path blocking

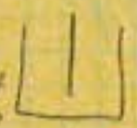


move through "Free Square" in direction enter!

Keep from getting on other guy's path!

1-16-68

FOR ADJACENT PATHS Need Crossing 2 Squares x 1 square: Can't get adjacent



~~Solve if move only diagonally thru crossing~~

No!

DATE 1-16-68 PROJECT NO.

~~Diagonal Move Only Thru Crossing~~ No!

SOLUTION: To cross a "crossing" move 3 squares at once. i.e. If move to an even # at crossing entrance move across to even # on other side of crossing

NOTE: For crossing which one player can use but other player can't use, make rule ~

Can move thru crossing to same # as "on" (but must move 3 spaces:

CAN TURN CORNER!

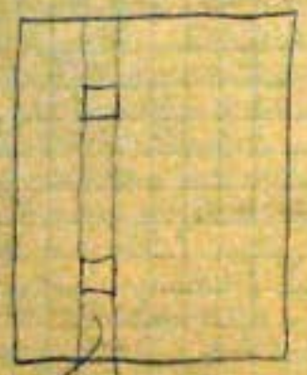
Black can cross and get 3 spaces for 1 since has 7's on either side.

Red can't cross.

Don't denote crossings. Just say can jump from over a ~~space~~ number to same one. e.g. Red jumps from 5 over 3 to 5.

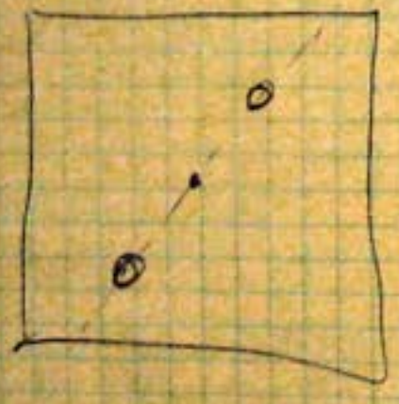
DATE 12-12 PROJECT NO.

TEAM Games where one player controls 2 or more "men" players — (Probably with one joystick —)



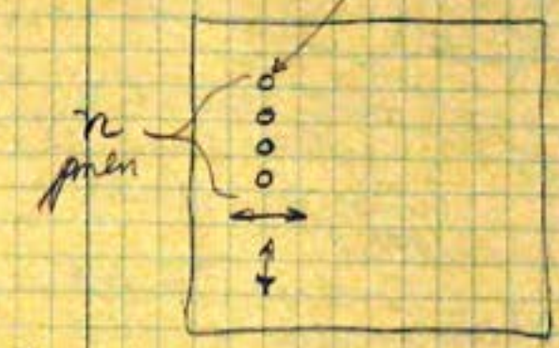
(could have men move together horizontally but opposite vertically (i.e. when one moves up, other moves down)

Or, have opposite in both directions —
i.e. if start both at center & if one moves up + left other moves down + right — always stay equidistant from center

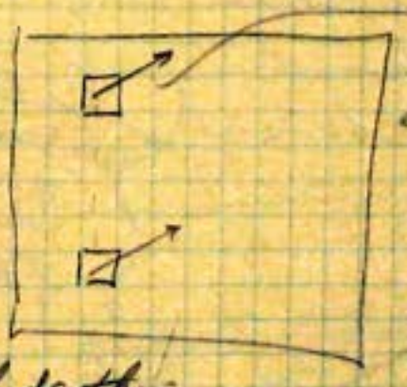


DATE PROJECT NO.

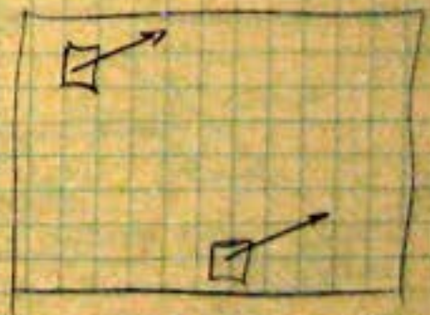
Use same hor.
Use first vert pulse (controlled by player) to fire n pulse burst)
Thus, can move "Team" with one control



Could have more "horiz" men:

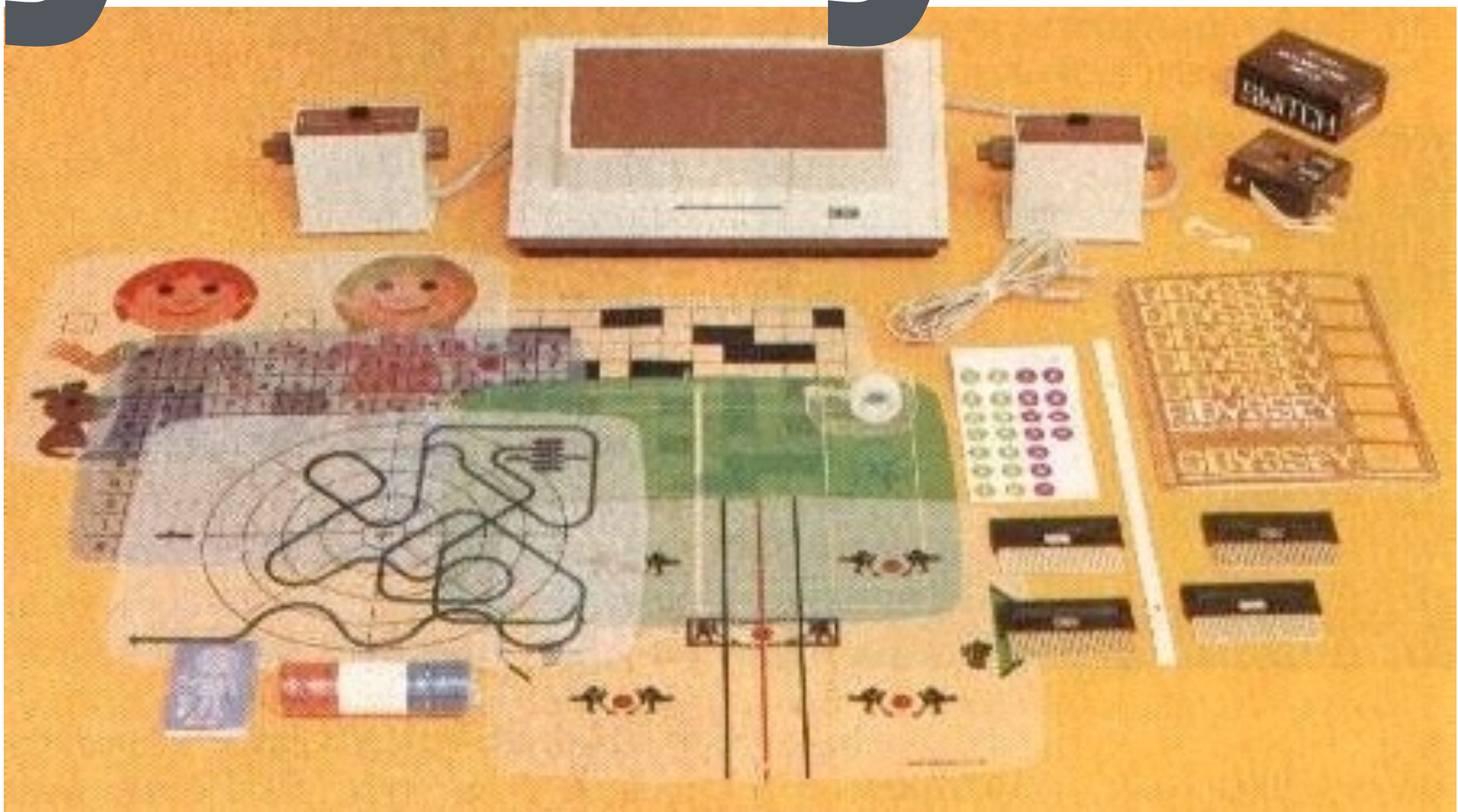


"Displaced" men but move in same direction



Could do this with synch'd multi's —

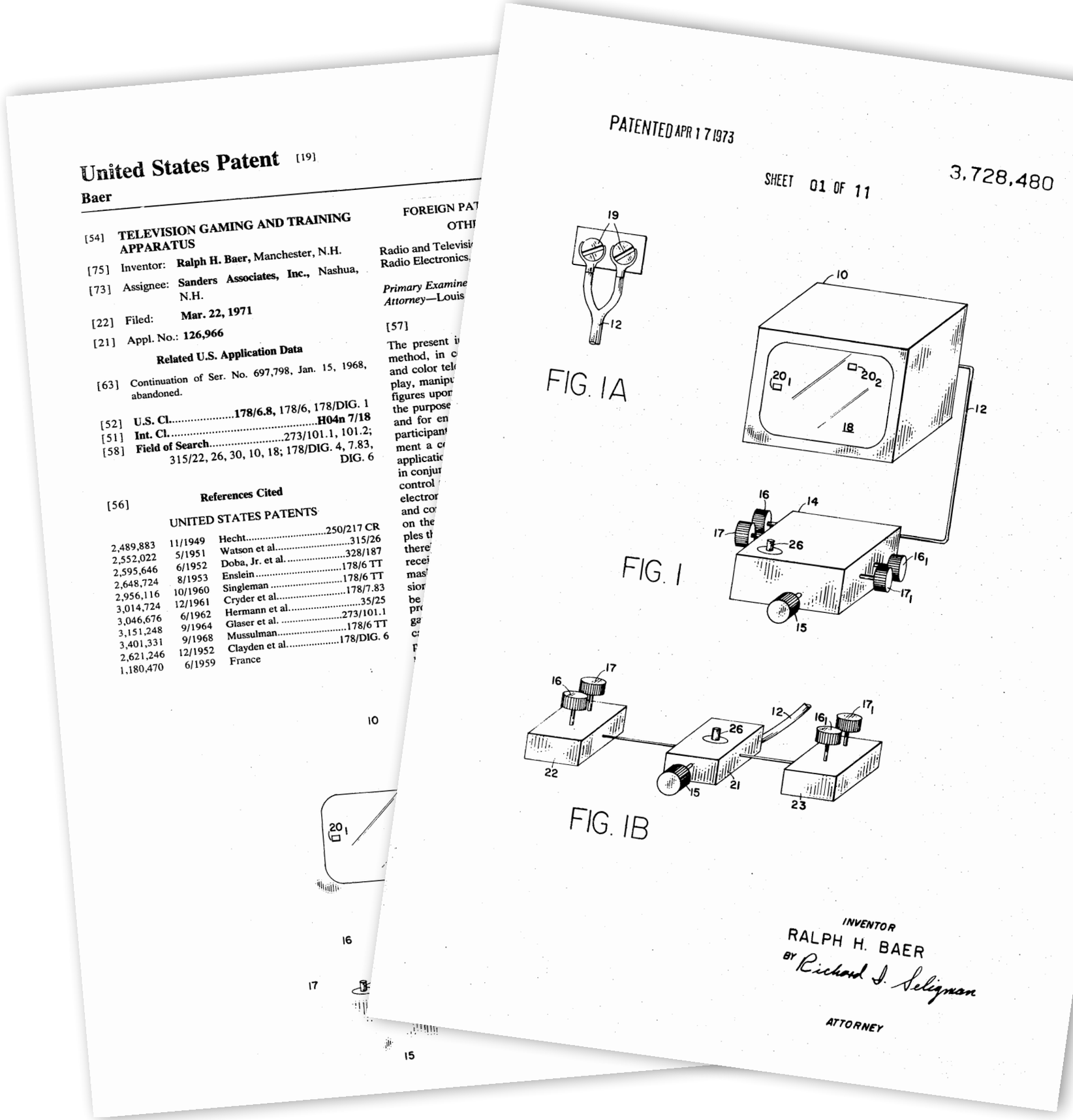
magnavox odyssey



patente do

aparato para jogo e treinamento na televisão

1973



United States Patent [19]

Baer

[54] TELEVISION GAMING AND TRAINING APPARATUS

[75] Inventor: Ralph H. Baer, Manchester, N.H.

[73] Assignee: Sanders Associates, Inc., Nashua, N.H.

[22] Filed: Mar. 22, 1971

[21] Appl. No.: 126,966

Related U.S. Application Data

[63] Continuation of Ser. No. 697,798, Jan. 15, 1968, abandoned.

[52] U.S. Cl. 178/6.8, 178/6, 178/DIG. 1
[51] Int. Cl. H04n 7/18
[58] Field of Search ..... 273/101.1, 101.2; 315/22, 26, 30, 10, 18; 178/DIG. 4, 7.83, DIG. 6

[56] References Cited

UNITED STATES PATENTS

2,489,883	11/1949	Hecht	250/217 CR
2,552,022	5/1951	Watson et al.	315/26
2,595,646	6/1952	Doba, Jr. et al.	328/187
2,648,724	8/1953	Enslein	178/6 TT
2,956,116	10/1960	Singleman	178/6 TT
3,014,724	12/1961	Cryder et al.	178/7.83
3,046,676	6/1962	Hermann et al.	35/25
3,151,248	9/1964	Glaser et al.	273/101.1
3,401,331	9/1968	Mussulman	178/6 TT
2,621,246	12/1952	Clayden et al.	178/DIG. 6
1,180,470	6/1959	France	

FOREIGN PAT
OTHE
Radio and Televisi
Radio Electronics,

Primary Examine
Attorney—Louis

[57]
The present i
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PATENTED APR 17 1973

SHEET 01 OF 11

3,728,480

FIG. 1A

FIG. 1

FIG. 1B

INVENTOR
RALPH H. BAER
BY Richard S. Seligman
ATTORNEY

galaxy game

primeiro
arcade coin-op
1971

PDP-11/20, Digital Equipment Corporation (DEC), US, 1970

All models of the PDP-11 family could run the same software. Its clean internal architecture, with multiple general-purpose internal registers, was more like a mainframe computer than earlier minicomputers.

Speed: 833.333 adds/sec Memory size: 4K words Memory type: Core Memory width: 16-bit Cost: $10,800

Gift of Tom Mathews, X1507.98

digital pdp11/20

digital equipment corporation · maynard massachusetts

ADDRESS REGISTER

DATA

RUN BUS

FETCH EXEC

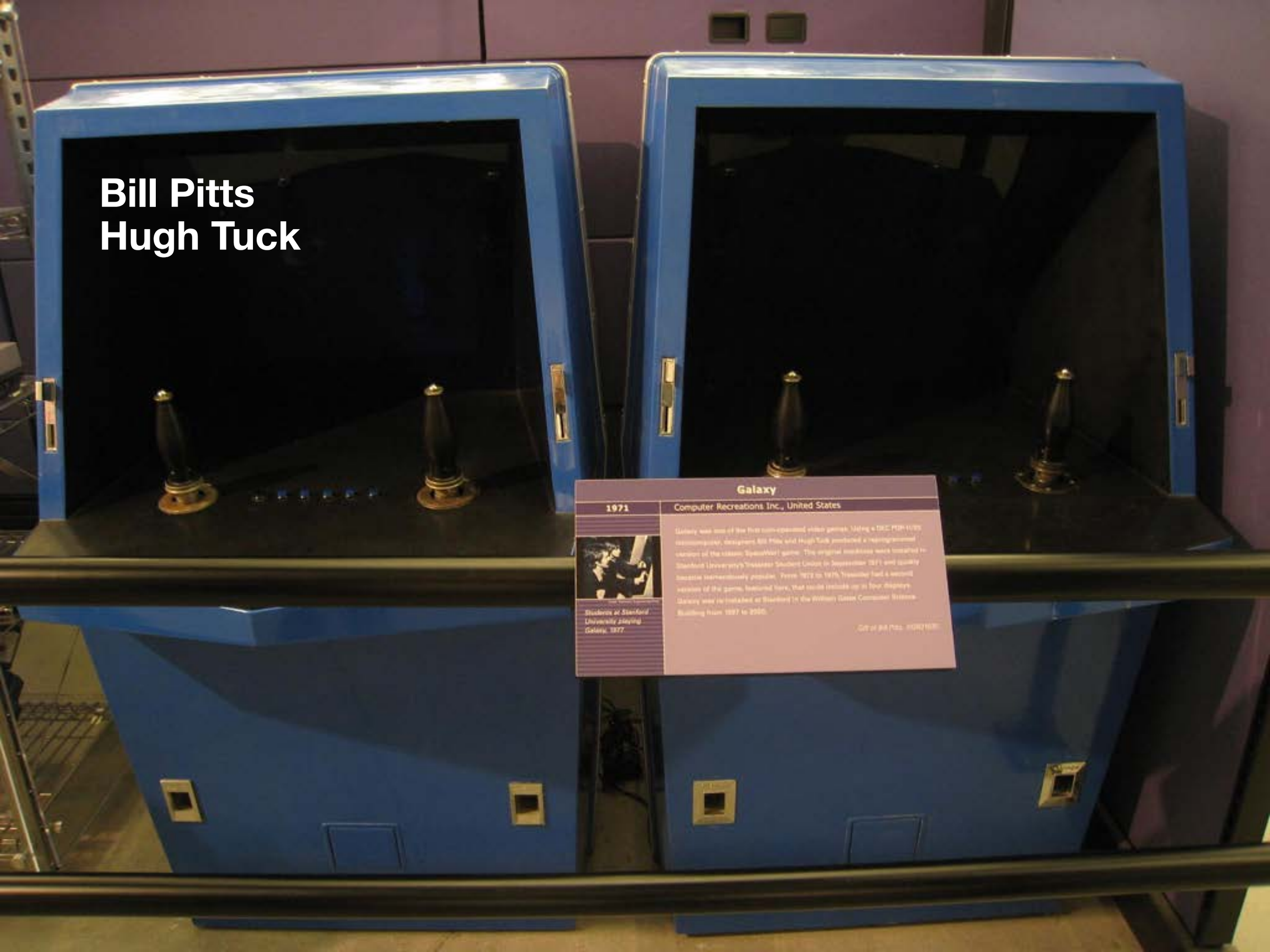
SOURCE DESTINATION

ADDRESS

SWITCH REGISTER

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

LOAD ADDR EXAM CONT ENABLE HALT S-INST S-CYCLE START DEP


Bill Pitts
Hugh Tuck
Galaxy
1971
Computer Recreations Inc., United States
Students at Stanford University playing Galaxy, 1977

nolan

bushnell

0
5
53

OSIBO
NEWS

Computer Space

© Photo / Collection OSIBO Productions - ww

OSIBO
NEWS

Computer Space

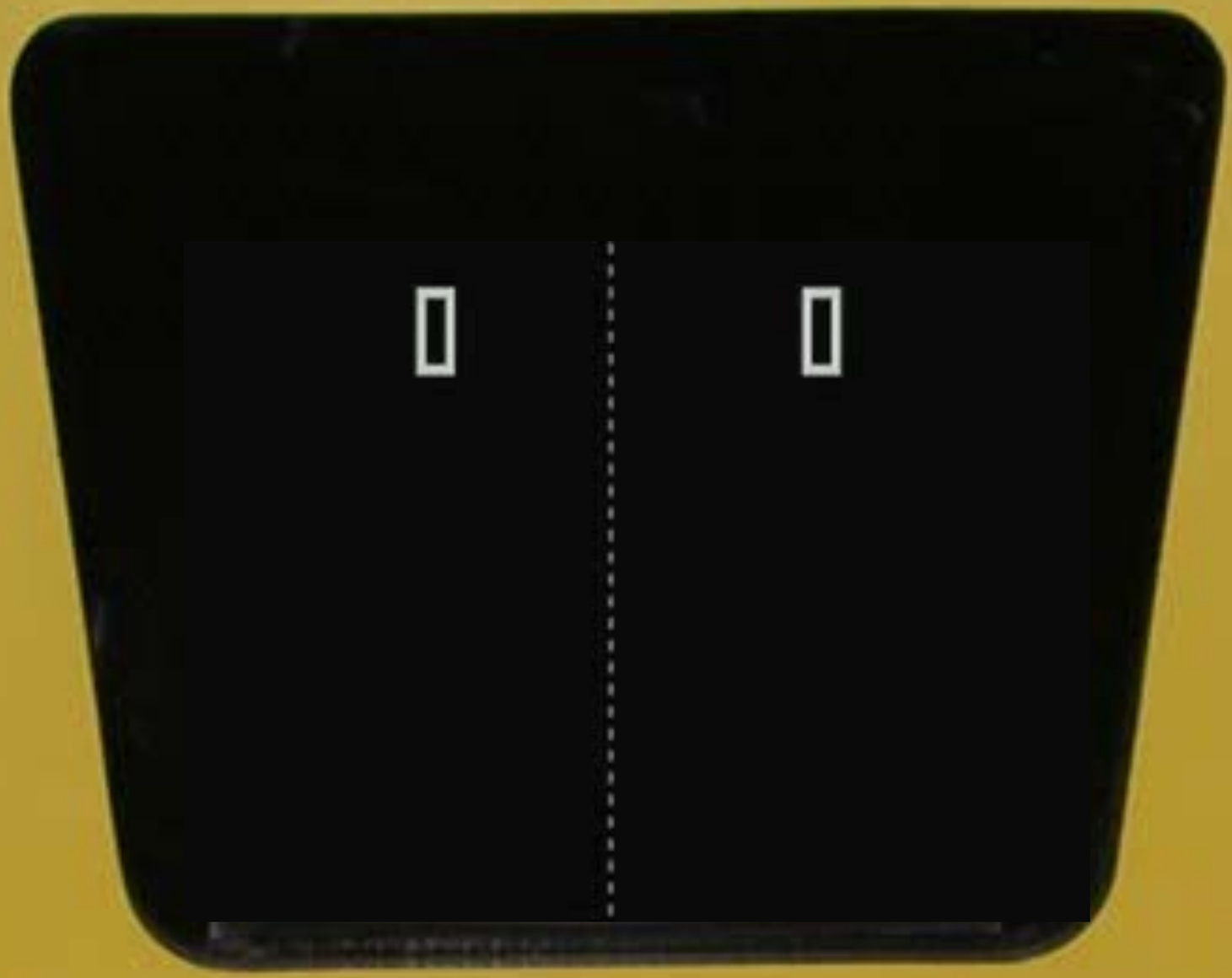
© Photo / Collection OSIBO Productio

funda em
27/07/1972

Al Acorn

PONG

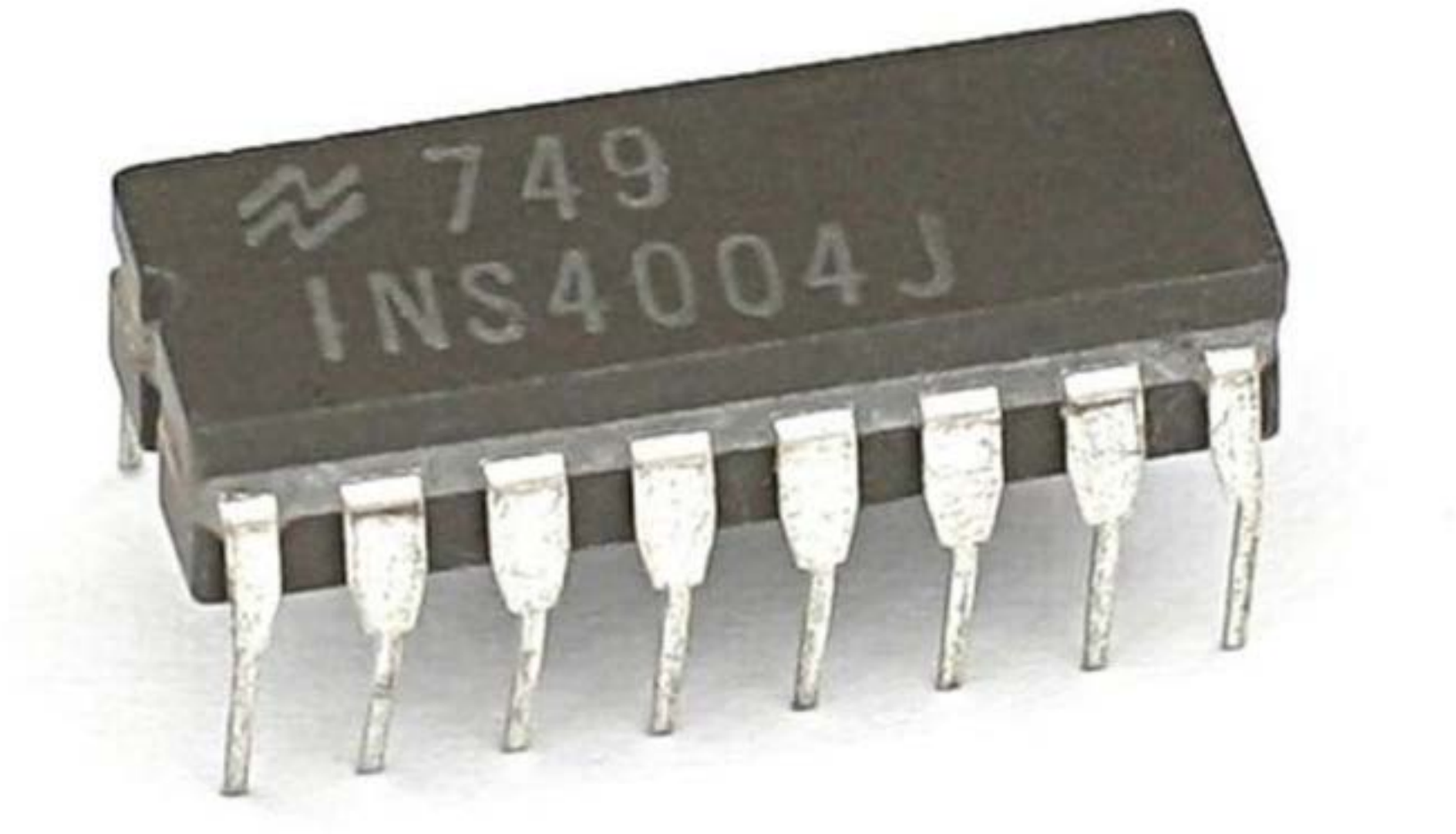
PONG

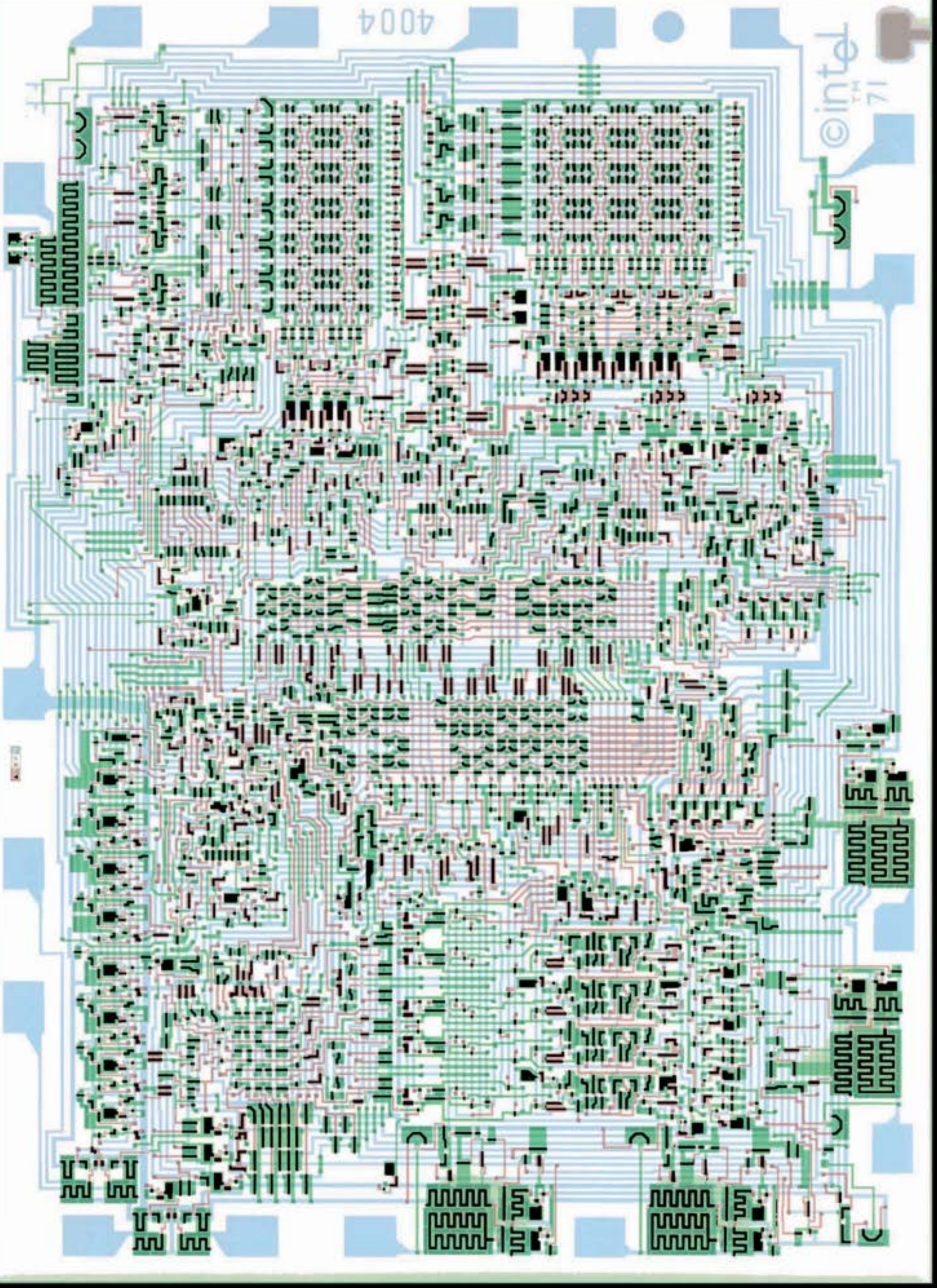


Ted Dabney Nolan Bushnell Fred Manricic Al Acorn

Intel 4004

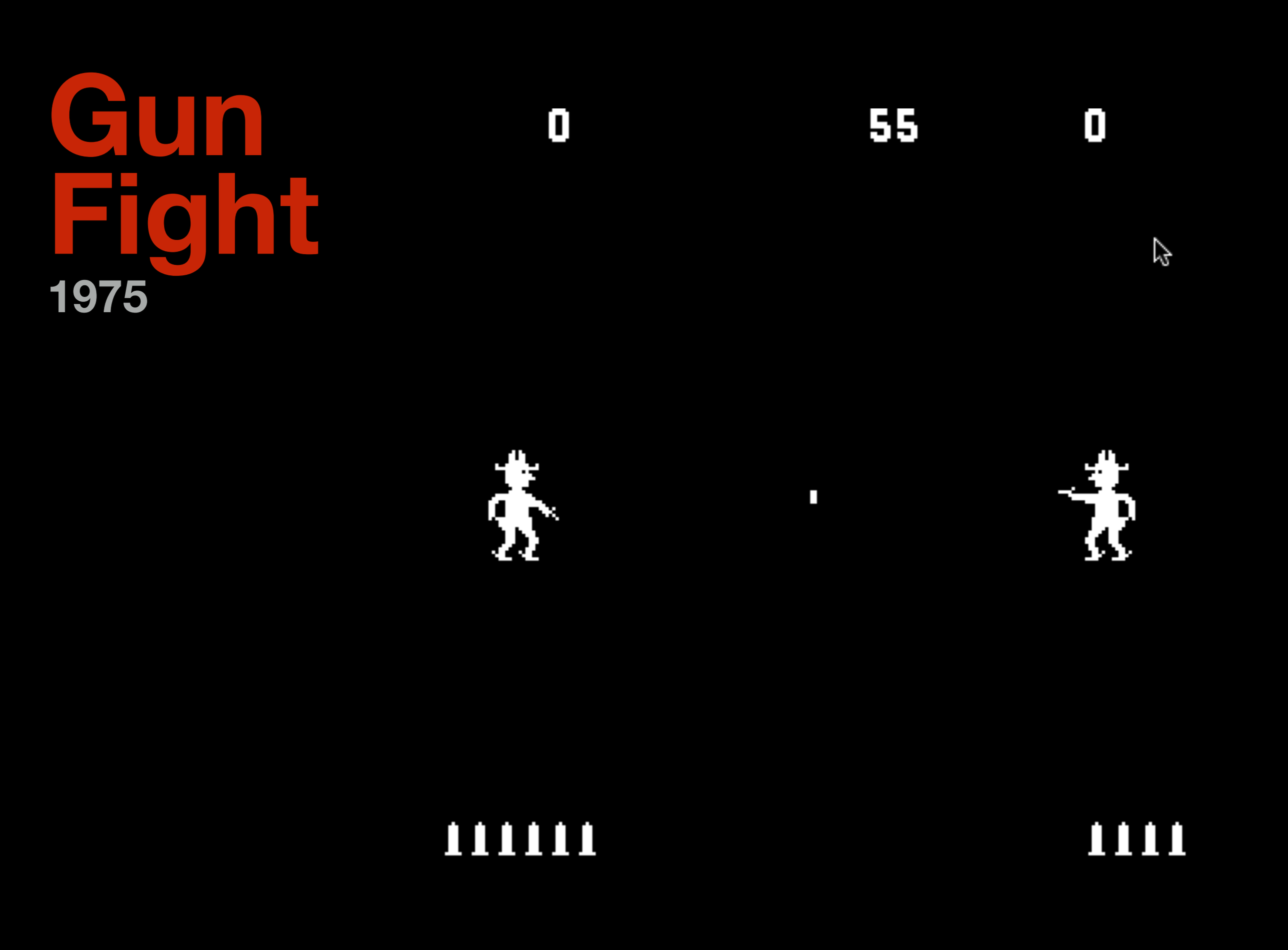
1971




4004
©intel
'71

Gun Fight

1975



NEW!
BY EXIDY
DEATH RACE
IT'S FASCINATING!
IT'S FUN CHASING
MONSTERS
DEATH RACE
• 1 OR 2 PLAYERS
• 25 CENTS PER PLAYER
• ADJUSTABLE PLAYING TIME
• ONE YEAR WARRANTY ON LOGIC BOARD
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SEE YOUR EXIDY DISTRIBUTOR
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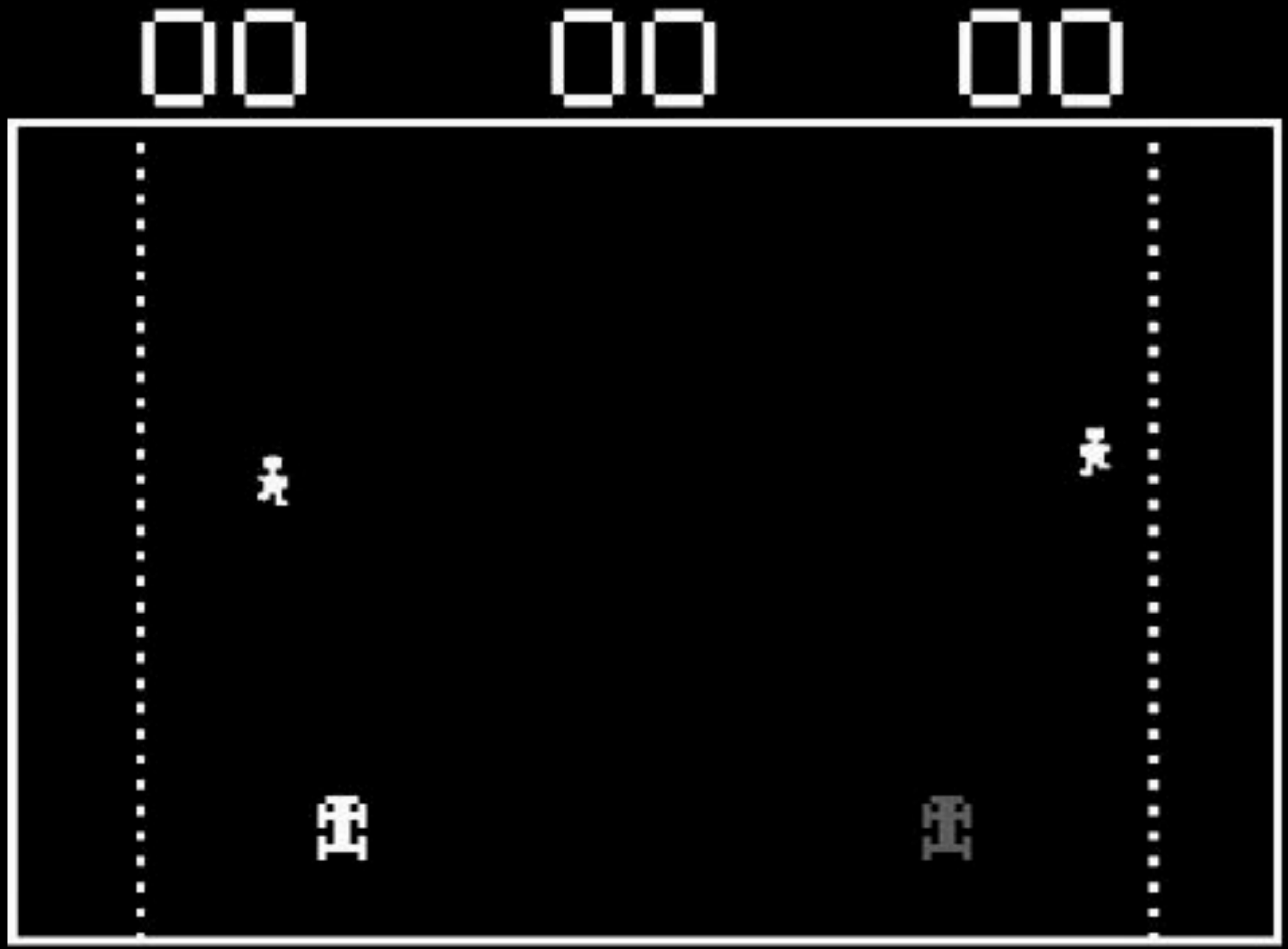
MT. VIEW, CA 94040
(415) 968 - 7670

DEATH RACE



1975

PONG

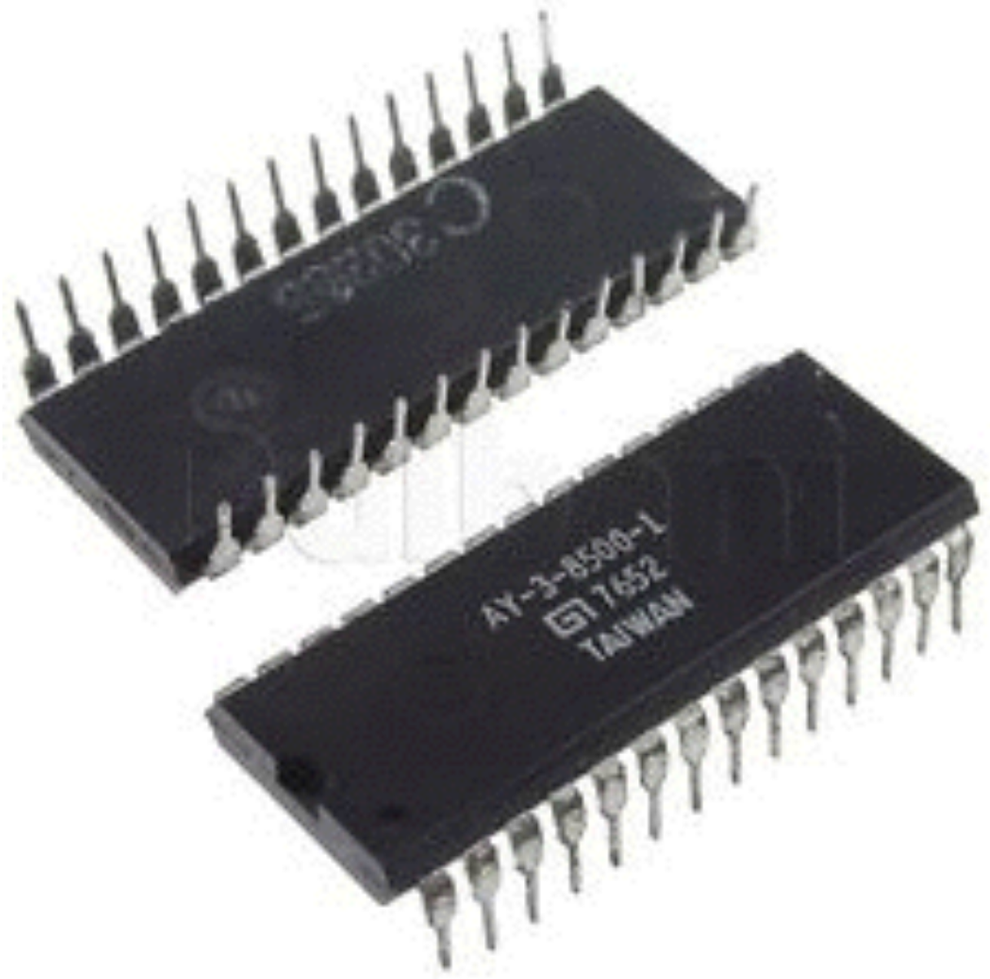
FOR YO

Atari Home Pong
1975

General Instruments AY-3-8500

Pong-on-a-chip

1976



TELSTAR alpha
4 VIDEO GAMES
TELSTAR
DIGITAL DISPLAY SCORING
VARIABLE SPEED AND PADDLE SIZE
3 ELECTRONIC GAME SOUNDS
MADE IN U.S.A.
TENNIS
HOCKEY
HANDBALL
JAI-ALAI
Requires 6 "C" batteries or Coleco No. 6041 AC adaptor. Neither included
COLECO
MUSEODELVIDEOJUEGO.COM

primeiro grande crash:

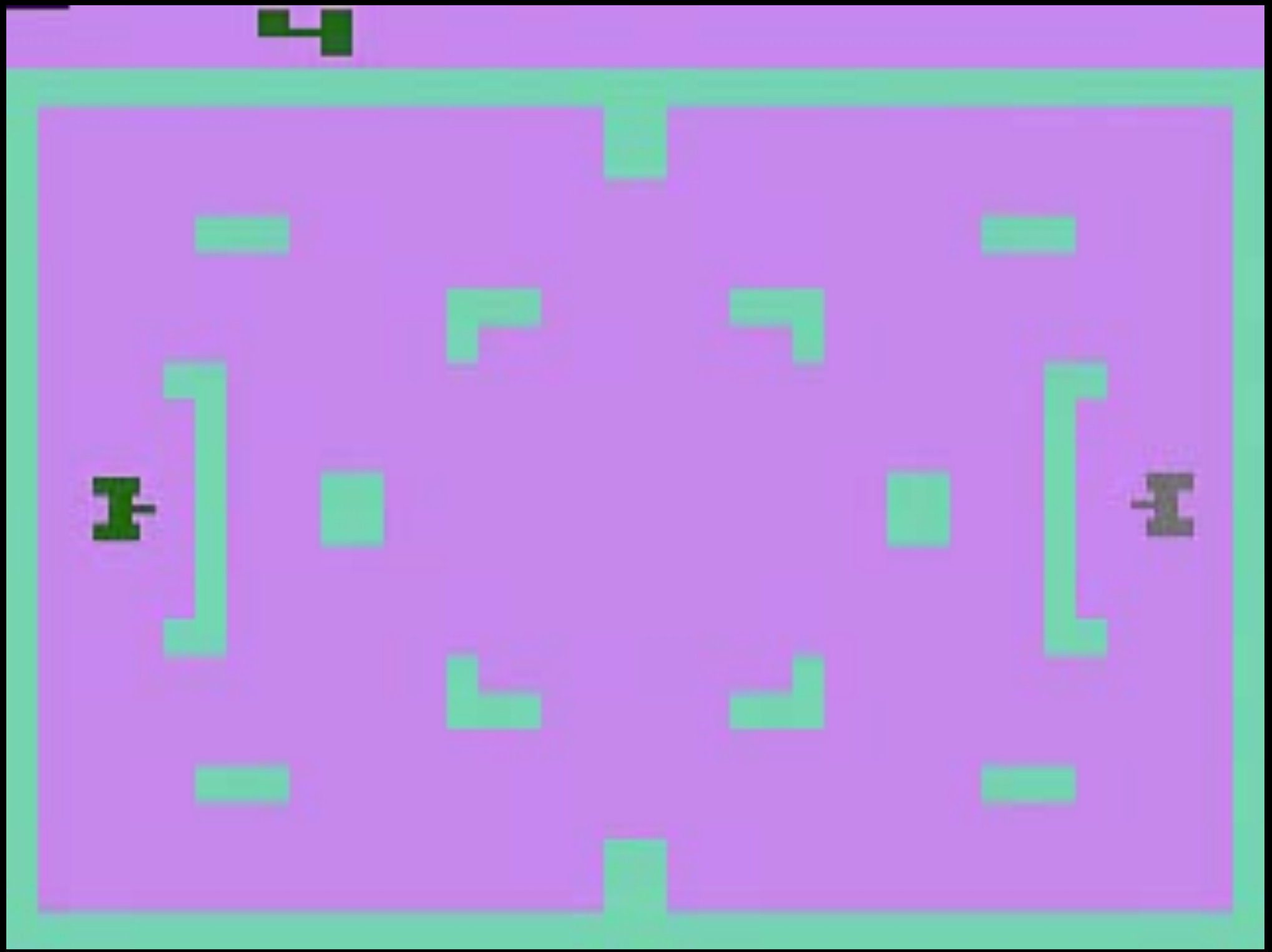
1976

1977

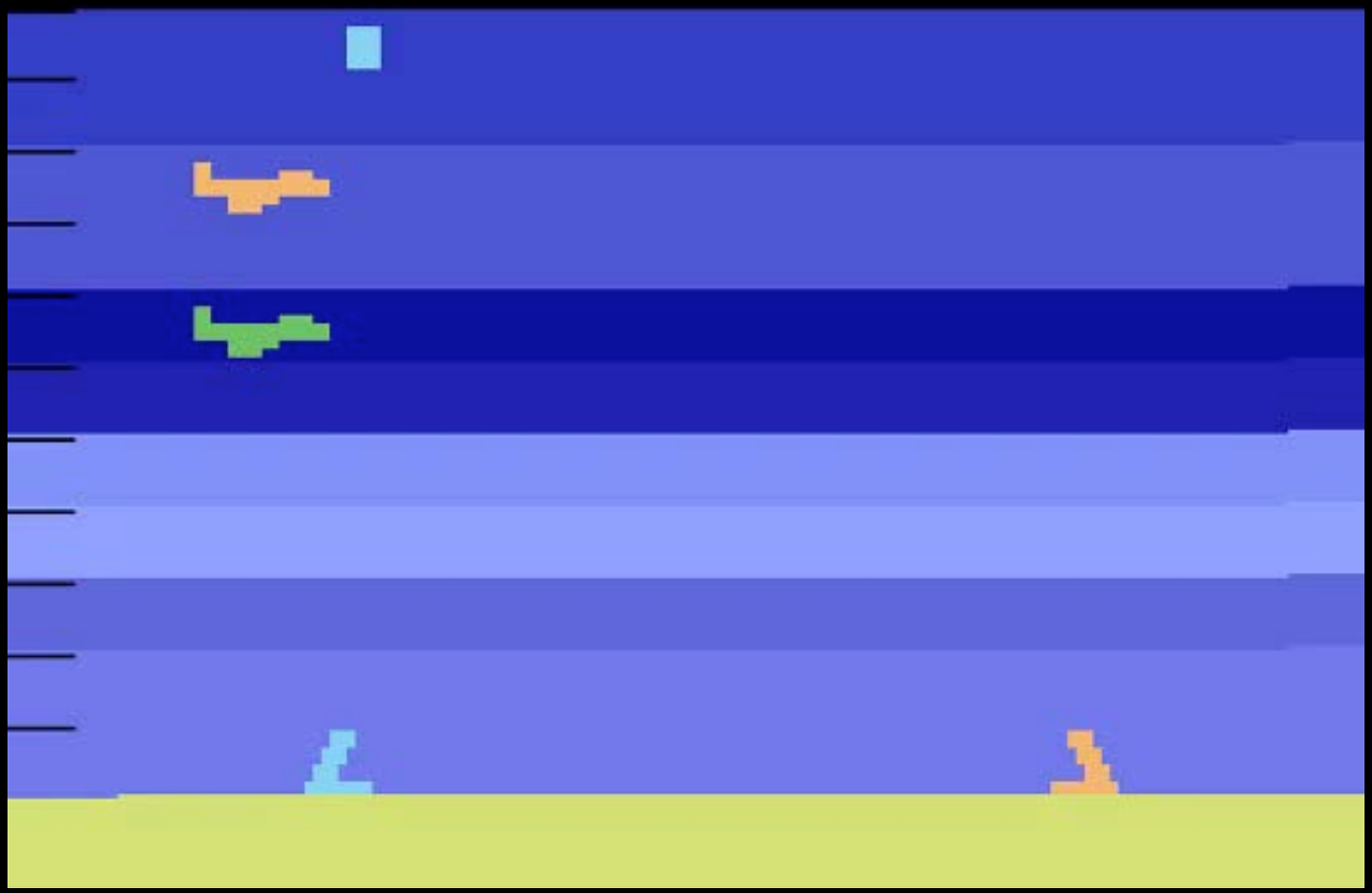
ATARI® VIDEO COMPUTER SYSTEM™

MORE GAMES – MORE FUN

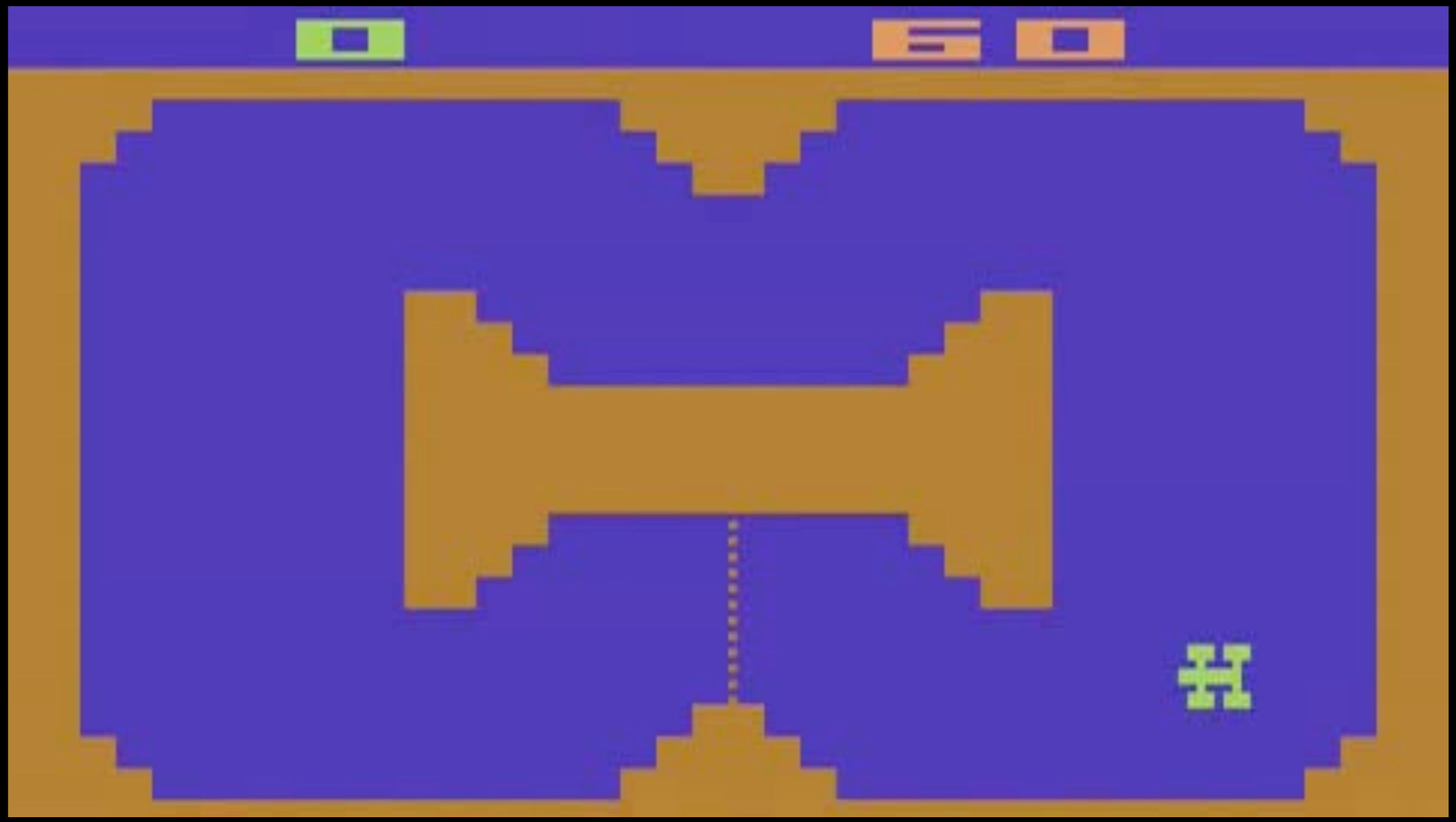
Combat, 1977



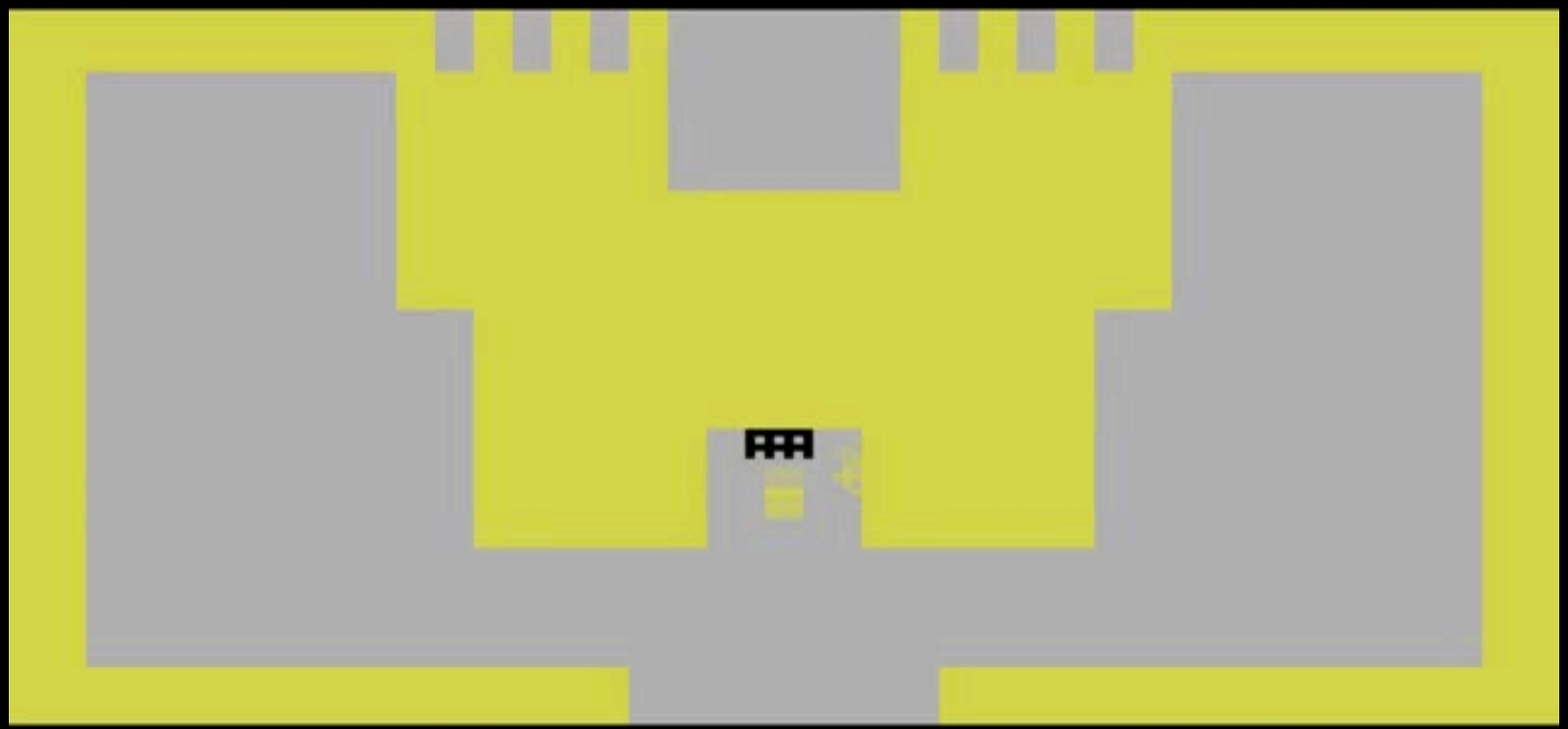
Air Sea Battle, 1977



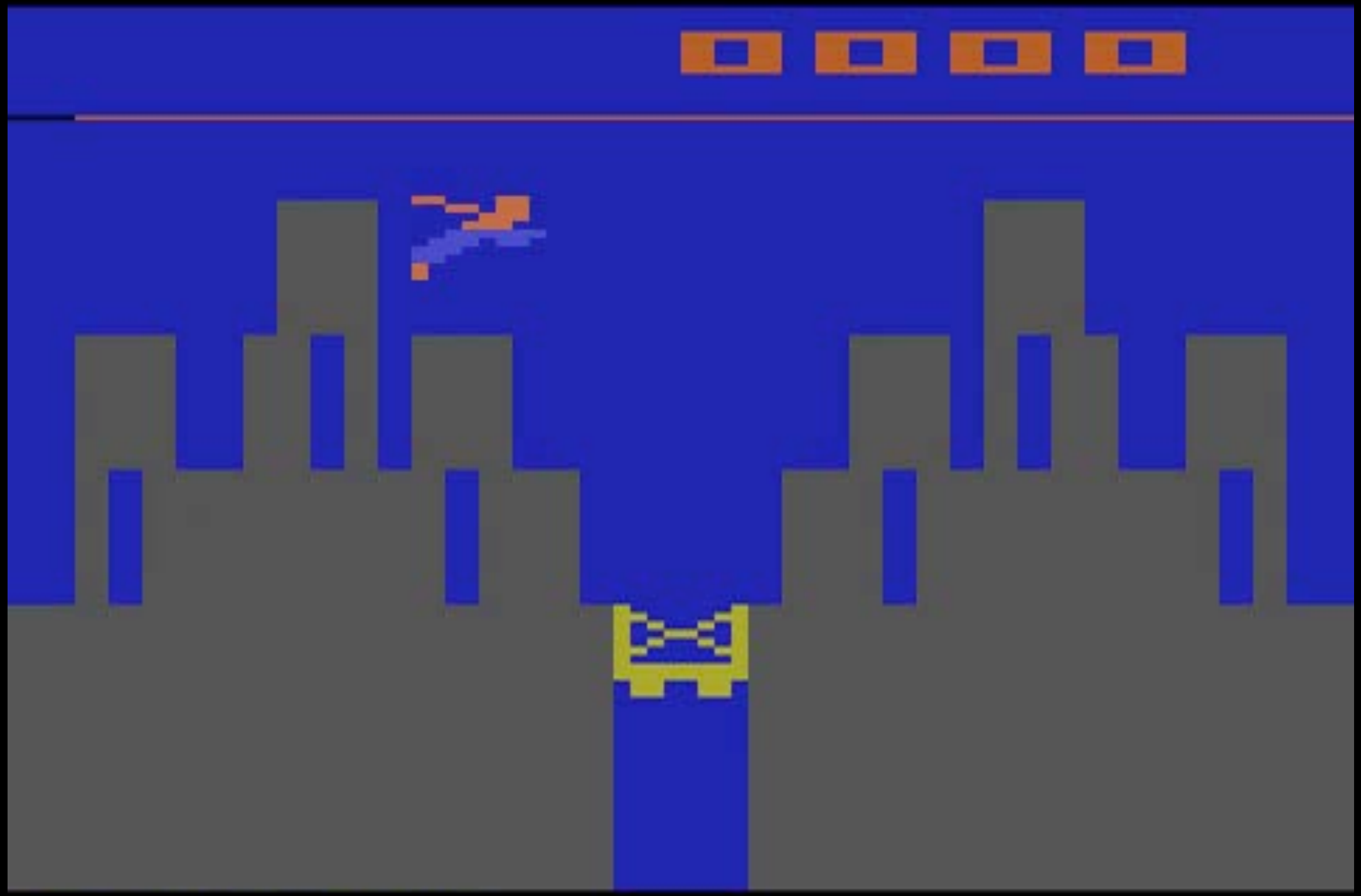
Indy 500, 1977



Adventure, 1977



Superman, 1979



enquanto isso no Japão...

junho de 1978

Defender
1980

Pacman
1980

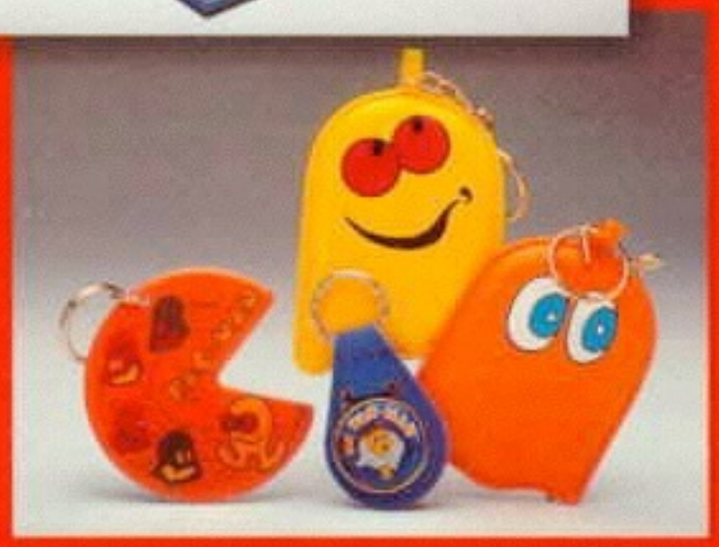
PAC-MAN

PAC-MAN

PAC-MAN

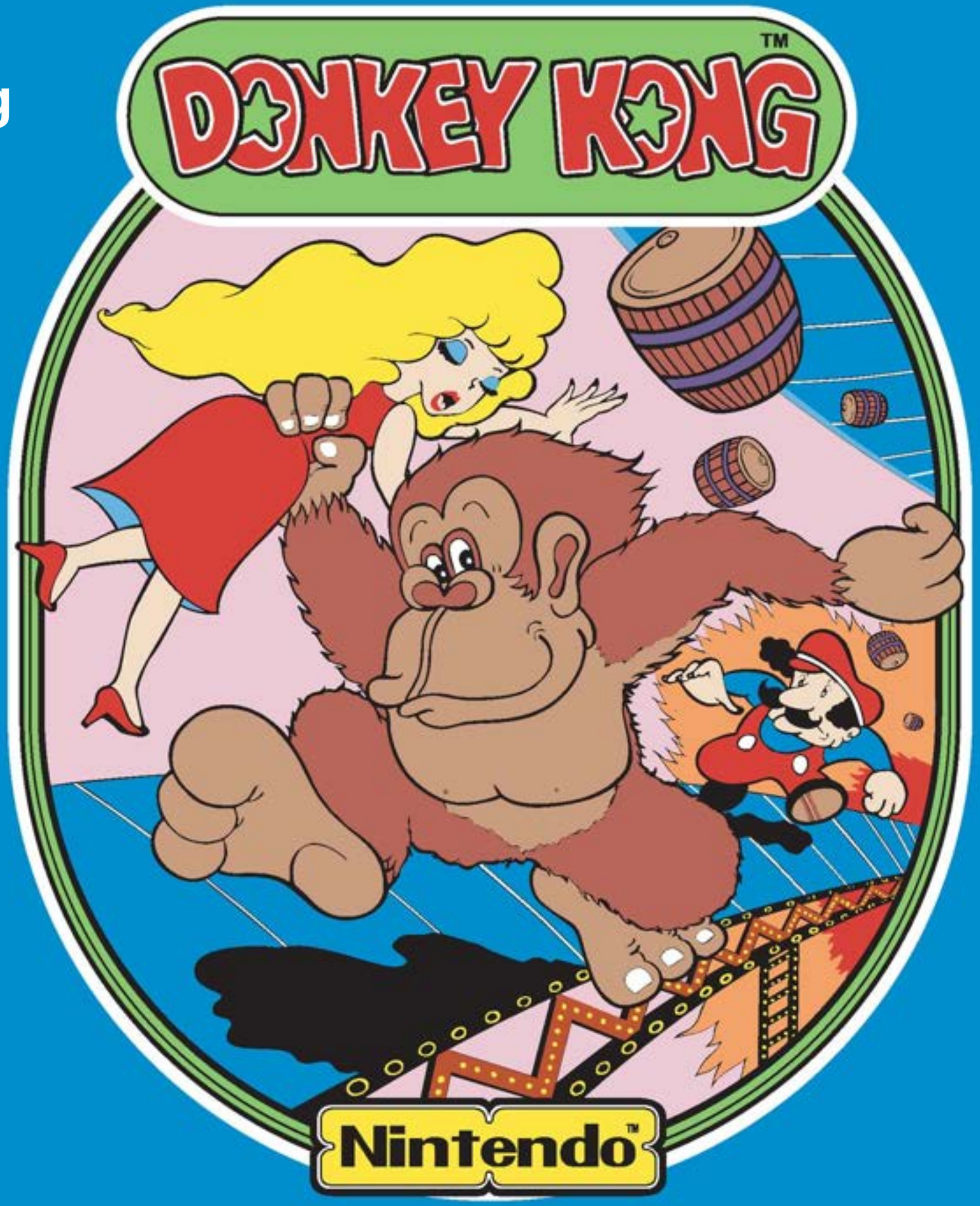
PAC-MAN
MANIAC

PAC-MAN



PAC-MAN

Donkey Kong
1981



1UP HIGH SCORE
003700 007650

INSERT COIN

PLAYER COIN
1 1
2 2

RANK SCORE NAME
1ST 007650
2ND 006100
3RD 005950
4TH 005050
5TH 004300

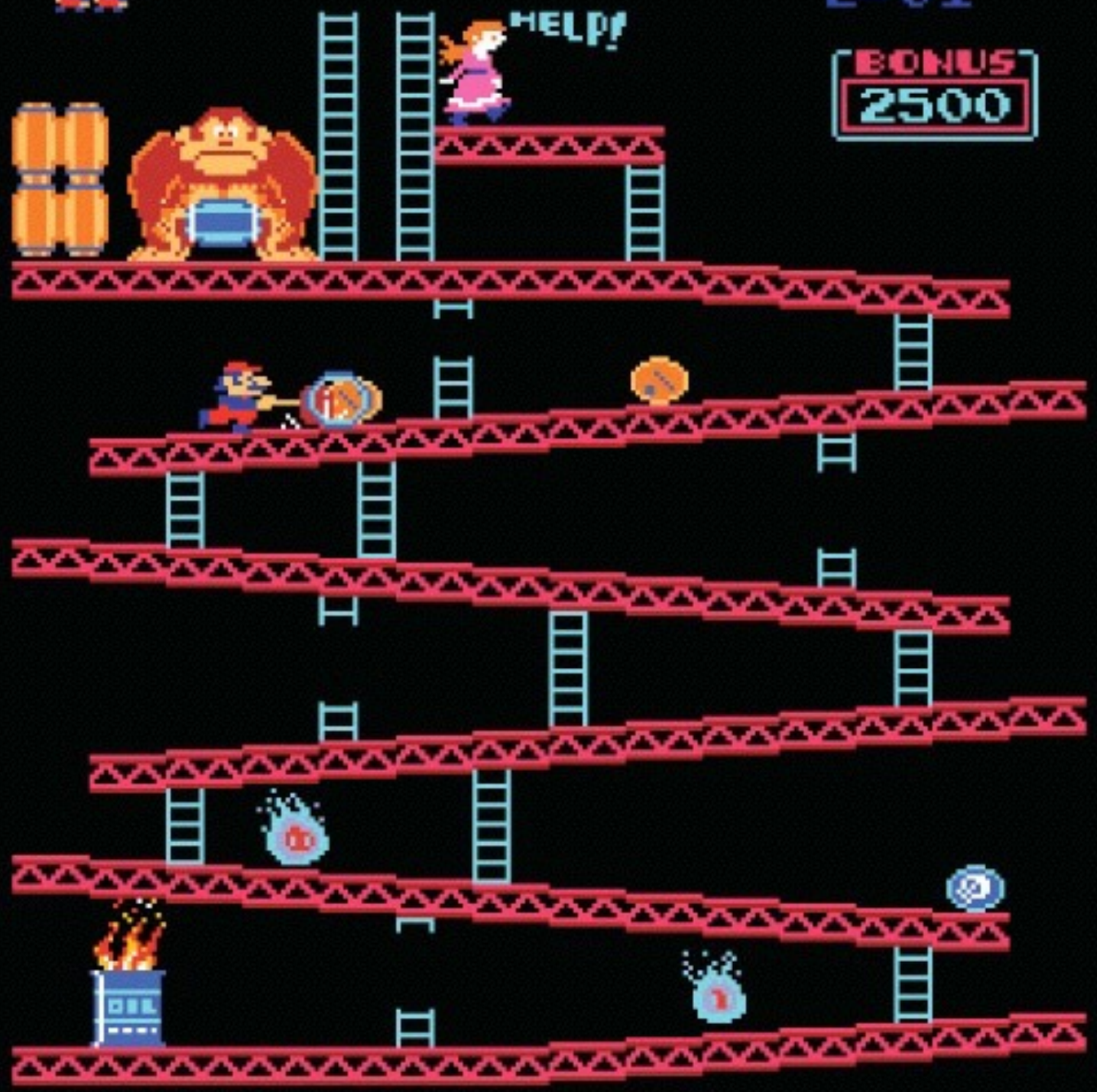
CREDIT 00

1UP
002100

HIGH SCORE
007650

L=01

BONUS
2500



Shigeru Miyamoto

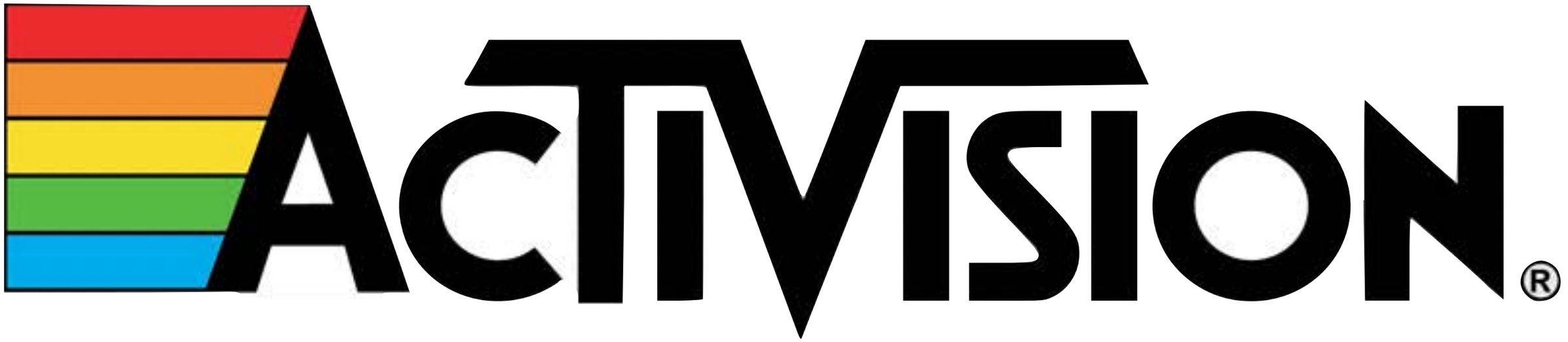
alan miller
larry kaplan
dave krane
bob whitehead

enquanto isso na ATARI...

tentam ser ouvidos
pela diretoria

motivo: mais crédito

Alan Miller, Larry Kaplan, Dave Crane e Bob Whitehead fundam



Primeira desenvolvera ‘Third Party’, abril 1980

ACTIVISION.

PRESENTS

CHOPPER COMMAND™

Conceived and designed by Bob Whitehead
For use with the Atari® Video Computer System™

USE JOYSTICK CONTROLLERS

Cadet Level
Game 1: One player
Game 2: Two players

Commander Level
Game 3: One player
Game 4: Two players

ACTIVISION.

PRESENTS

BARNSTORMING™

Conceived and designed by Steve Cartwright
For use with the Atari® Video Computer System™

ONE PLAYER USING LEFT JOYSTICK CONTROLLER

Game 1:
Hedge Hopper

Game 2:
Crop Duster

Game 3:
Stunt Pilot

Game 4:
Flying Ace

(see instructions for course descriptions)

ACTIVISION.

PRESENTS

KABOOM!™

Conceived and designed by Larry Kaplan for
enjoyment on your Atari® Video Computer System™

USE PADDLE CONTROLLERS

GAME 1:
One Player vs.
the "Mad Bomber"

GAME 2:
Two Players vs.
the "Mad Bomber"

ACTIVISION.

PRESENTS

PITFALL!™

(PITFALL HARRY'S JUNGLE ADVENTURE™)

Conceived and designed by David Crane
For use with the Atari® Video Computer System™

ONE PLAYER AT A TIME
USING LEFT JOYSTICK CONTROLLER

ACTIVISION.

PRESENTS

RIVER RAID™

Conceived and designed by Carol Shaw
For use with the Atari® Video Computer System™

USE JOYSTICK CONTROLLERS

Game 1:
One Player

Game 3:
Two Players

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Audio-Visual concept, name and program © 1982 ACTIVISION AE-020

ACTIVISION.

PRESENTS

DRAGSTER

Conceived and designed by David Crane
For enjoyment on your Atari Video Computer System™

USE WITH JOYSTICK CONTROLLERS

GAME 1
Straight Dragster,
one or two players

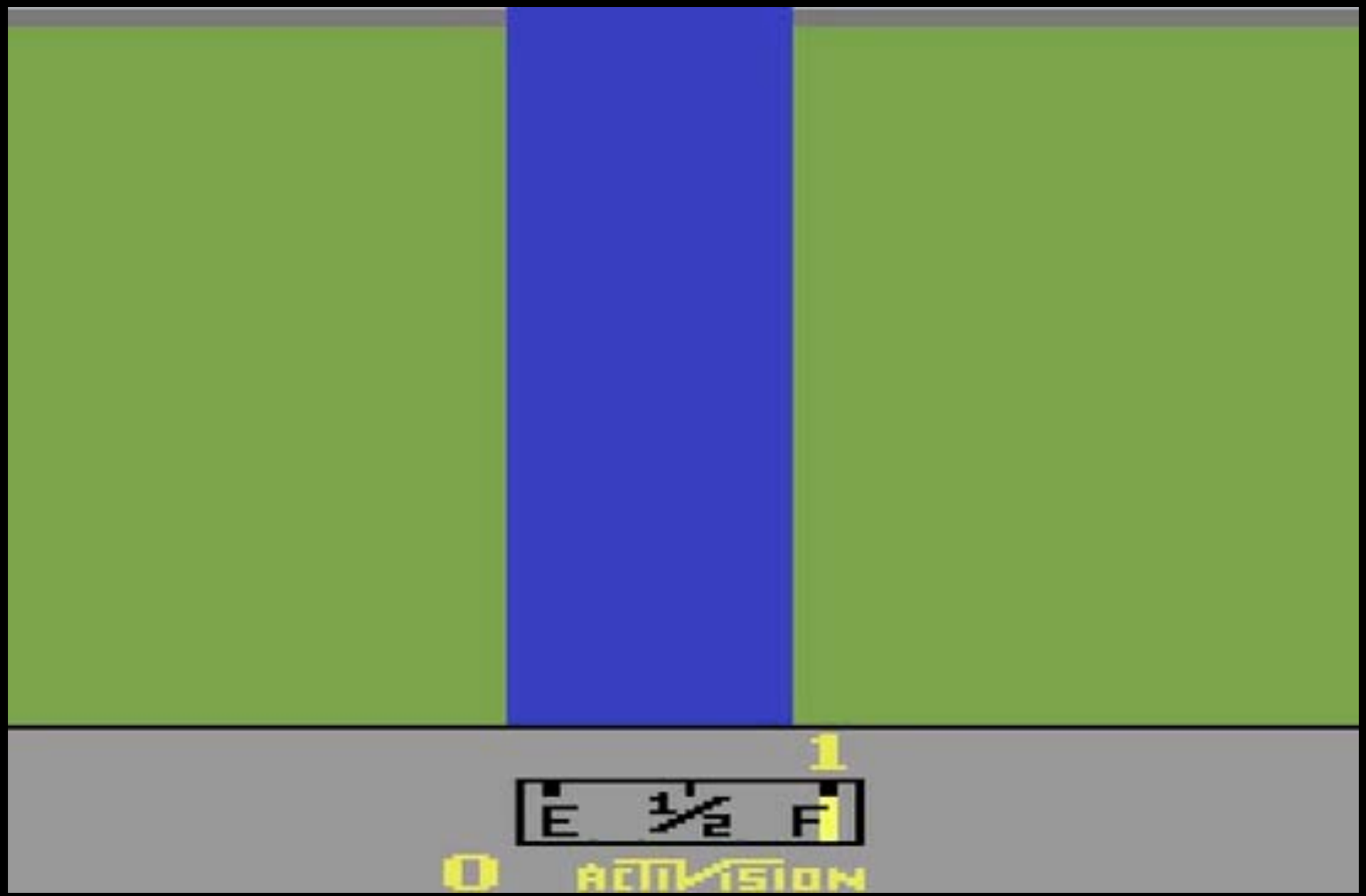
GAME 2
Steering Dragster,
one or two players

Video Design and Program Content © 1982 ACTIVISION AG-001

Pitfall, 1982

Enduro, 1982

Enduro, 1982



IMAGIC

Demon Attack, 1982

Cosmic Ark, 1982

ODYSSEY 2
MICROPROCESSOR
MAGNAVOX
NUMERIC
ALPHA
YES
NO
CLEAR
ENTER
SPACE

Odyssey 2

lançado em 1978

diferencial era o teclado

série com jogos que combinavam tabuleiro e vídeo

WWW.VGDB.COM.BR

SELECT GAME

WWW.VGDB.COM.BR

SELECT GAME

INTELLIVISION

Intellivision

lançado em 1980

“intelligent television”

cpu GI-1610
16 bits (!!!)

lançado pela Mattel
após sucesso no
mundo dos games
portáteis

MATTEL ELECTRONICS
BASEBALL

MATTEL ELECTRONICS™
DOWN
FIELD POSITION
YARDS TO GO
HOME
TIME REMAINING
VISITOR
ST
K
SC
OFF
PRO 1
PRO 2
FOOTBALL
PHOTO COURTESY WWW.OAKTREEVINTAGE.COM
SEE OUR WEBSITE FOR LOTS OF VINTAGE GEAR!

Mattel Electronics
presents

BASKETBALL

Copr @ 1978 Mattel

RetroGameGuide .com

The Museum of Classic Chicago Television

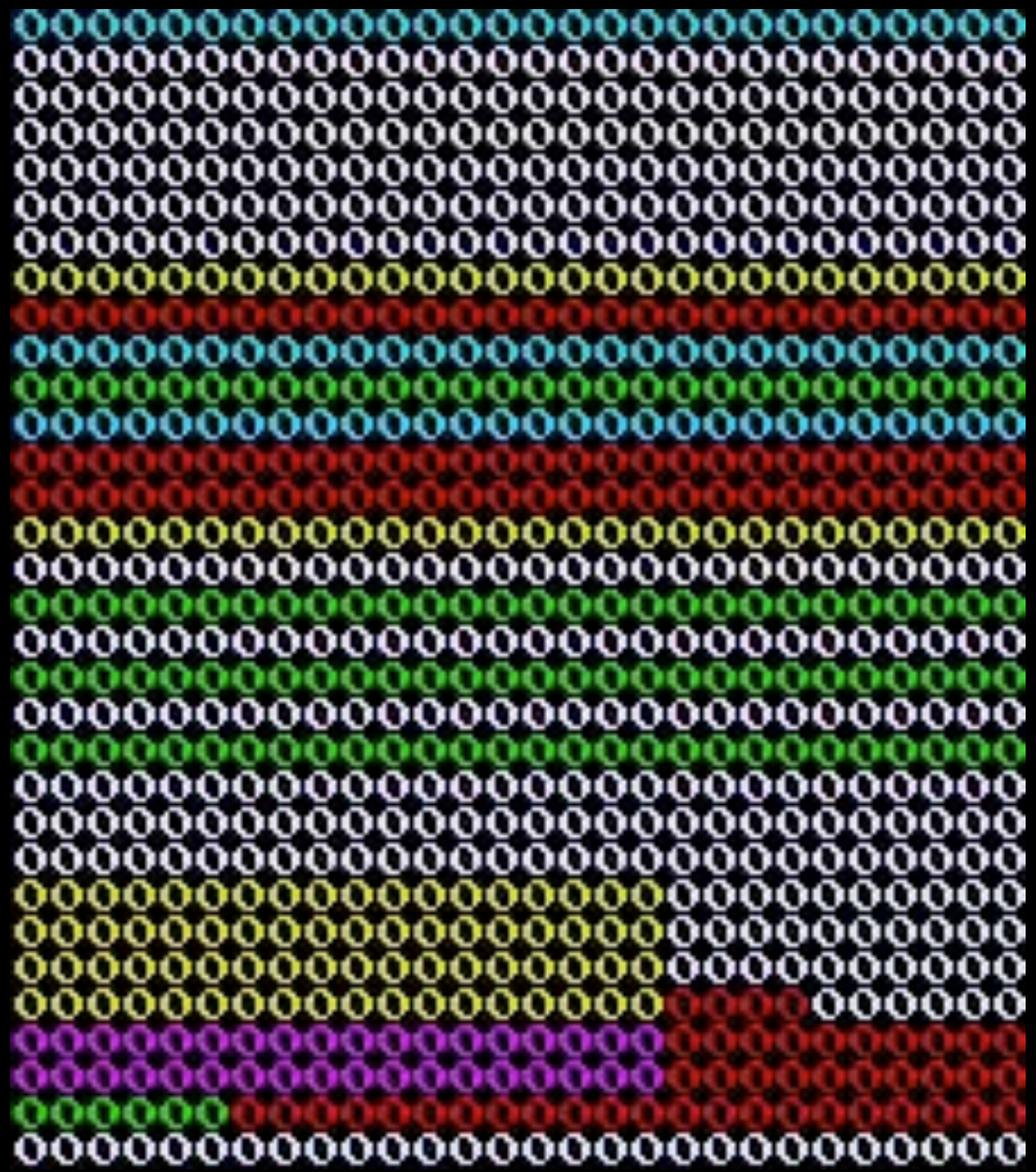
www.FuzzyMemories.TV

COLECO VISION

COLECOVISION ™

CABBAGE PATCH KIDS
ADVENTURE IN THE PARK

© 1984 COLECO



ADVENTURE
ASTEROIDS
ATLANTIS
BACKGAMMON
BARNSTORMING
Basketball
BERZERK
BOXING
CASINO
CENTIPEDE
CHOPPER COMMAND
CIRCUS ATARI
COMBAT
COMMANDO
DEMON ATTACK
DESERT FALCON
DODGE 'EM
DONKEY KONG
ENDURO
E.T.
FISHING DERBY
FROGGER
FROSTBITE
CONCENTRATION
GI JOE
GOLF
GORF
GRAND PRIX
GUNSLINGER
GYRUSS
HOME RUN
ICE HOCKEY
INDY500
007
JOUST
JR. PAC-MAN
JUNGLE HUNT
KABOOM!
KANGAROO
KEYSTONE KAPERS
KRULL
MAD
MAZE CRAZE
MEGAMANIA
Midnight Magic
Millipede
MISSILE COMMAND
Montezuma's Revenge
MOONSWEEPER
MOUNTAIN KING
MS. PAC-MAN
NIGHT DRIVER
OUTLAW
PHOENIX
PITFALL!
PITFALL II
POLE POSITION
POPEYE
PRESSURE COOKER
PRIVATE EYE
Q-bert
RAMPAGE
Reactor
ROBOT TANK
ROAD RUNNER
SEA QUEST
SMURF
SOLARIS
SPACE INVADERS
SPACE WAR
SPIDER FIGHTER
SPIDER-MAN
SPY HUNTER
STAMPEDE
STAR RAIDERS
STAR SHIP
STAR TREK
RETURN OF THE JEDI
STAR WARS
STAR WARS JEDI ARENA
SUPER FOOTBALL
SUPER-MAN
SWORDQUEST
TANKS BUT NO TANKS
TAPPER
TENNIS
Tutankham
VANGUARD
VIDEO CHECKERS
VIDEO CHESS
VIDEO OLYMPICS
WARLORDS
XENOPHOBE

segundo grande crash:
~1983

Altair 800, 1975

Apple I, 1976

Sophisticated design makes it simple.

Apple II will change the way you think about computers. Compared to first generation "hobby" computers, Apple II is easier to use, faster, smaller and more powerful. It brings to personal computing a new level of simplicity through hardware and software sophistication. And Apple II can grow with you as your skill and experience with computers grows.

Sophisticated built-in features such as BASIC, the English-like programming language, advanced color graphics, and use of state-of-the-art high density memory components (16K ROMs and RAMs), set Apple II apart from all the others.

But you don't even need to know a ROM from a RAM to use and enjoy Apple II. Its beauty is in its simplicity. It's a complete, ready to use computer—not a kit. Everything is included. Hook it up to your color TV* and begin writing your own computer programs the very first evening. Even if you've had no previous computer experience, you can invent your own color games, create artistic displays, or instruct Apple II to chart your home finances. Conversing with Apple II in BASIC is easy using its familiar typewriter-style keyboard.

Games have always been one of the most creatively challenging applications for the computer, and Apple II's sophistication shows through in the games it can help you create. Games like PONG or STARTREK. Apple BASIC contains advanced unique commands for using color graphics (COLOR=, PLOT, HLIN, VLIN, SCRN) which means creating dazzling color displays or writing your own PONG type game becomes something even a beginner can master. Since text can be displayed along with graphics, your program can keep score, give and accept instructions and even comment on your ability as a player. Paddles and joysticks are interfaced easily using the built-in Apple GAME I/O connector. And a special BASIC command (PDL) automatically senses the position of the paddle. That simplifies writing action games. Apple II's built-in speaker sounds when the ball is hit, and when a point is made or lost. In STARTREK, you'll actually hear the phasers and photon torpedoes.

Apple II will do more than entertain you. Playing with it, you'll begin to learn what a computer is all about and how rewarding it can be. You'll discover that it's easy to program your Apple II to do things like teach your kids arithmetic or spelling. (Yes, it's OK to let your kids use Apple II. It's ruggedly engineered and has a virtually unbreakable plastic case.) And you can save your programs on an ordinary cassette tape using the built-in cassette interface and your home cassette recorder. Other sources of programs are the Apple software library and the Apple II owner down the block.

Increased memory can extend your horizons. For instance, with 12K or more memory, Apple II can generate a high-resolution (280h x 192v) graphic display in 4 colors useful for scientific, medical or artistic applications. The user memory can be expanded up to 48K bytes by simply inserting more memory packages in the sockets provided.

Also, there are several peripheral boards scheduled for introduction soon which will plug into the expansion connectors—Apple II has eight built-in—enabling you to synthesize music or talk to another computer over the phone. Many more interesting peripheral boards to expand your Apple II will be available this year.

As you become an expert, you'll grow to appreciate the sophistication inside Apple II. Its 2K byte ROM monitor contains a mini-assembler, a disassembler, single-step and trace routines, floating point package, a software-simulated 16-bit processor routine, and more.

Apple II is an advanced personal computer that will continue to challenge you for years to come.

Simplicity. Sophistication. Apple II.

apple computer inc.

*Apple II plugs into a TV monitor or hook-up to any standard television using an inexpensive coaxial cable (available RF modulator not supplied).

PONG is a trademark of Atari, Inc.

Copyright 1977 Apple Computer Inc.

*** COMMODORE BASIC ***
7167 BYTES FREE
READY.
MAXIMUM PC
commodore
PET
2001 Series
personal
computer

Karateka, 1984

ZX81
TV
MIC
9VDC
SHIFT

SCORE 123 AGAIN? (A/K)

FERGUSON

ZX81

ZX81 BASIC

GLOOPER

QUICKSILVA ... M.P.CRANE

INPUT LEVEL (1 TO 7)

L

ANYONE THERE?

a hora e a vez dos computadores pessoais

ZX Spectrum

SCORE 010720

PLAYER 1 LEVEL 04 BONUS 3920 TIME 871

a hora e a vez dos computadores pessoais

Commodore 64

Uiridum, 1986

-USING-
-HOLDING-
POWER
019180
00:03:55

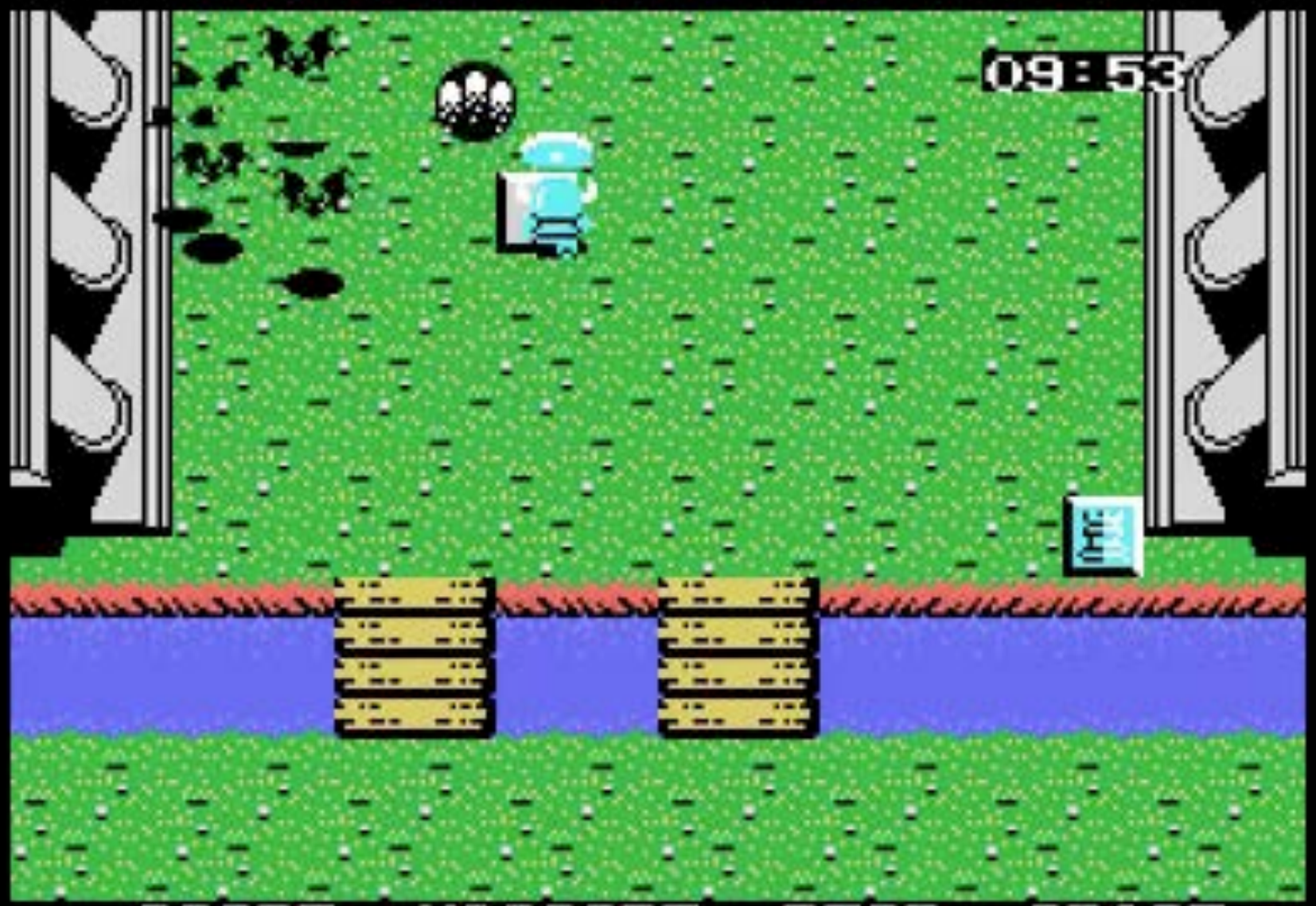
enquanto isso no Japão...

segundo game crash:

~1983

MSX HOME COMPUTER
HB-10P
F1/F6
F2/F7
F3/F8
F4/F9
F5/F10
HOME
INS
DEL
STOP
ESC
TAB
CTRL
CODE
CODE
GRAPH
SELECT
HiTBiT
SONY

Panasonic
A1 MK II
F6 / F1
F7 / F2
F8 / F3
F9 / F4
F10 / F5
STOP
CLS / HOME
SELECT
INS
DEL
BS
SHIFT
CAPS
GRAPH
SPACE
PAUSE


09:53
SCORE
13570
HISCORE
13570
REST
02
STAGE
01

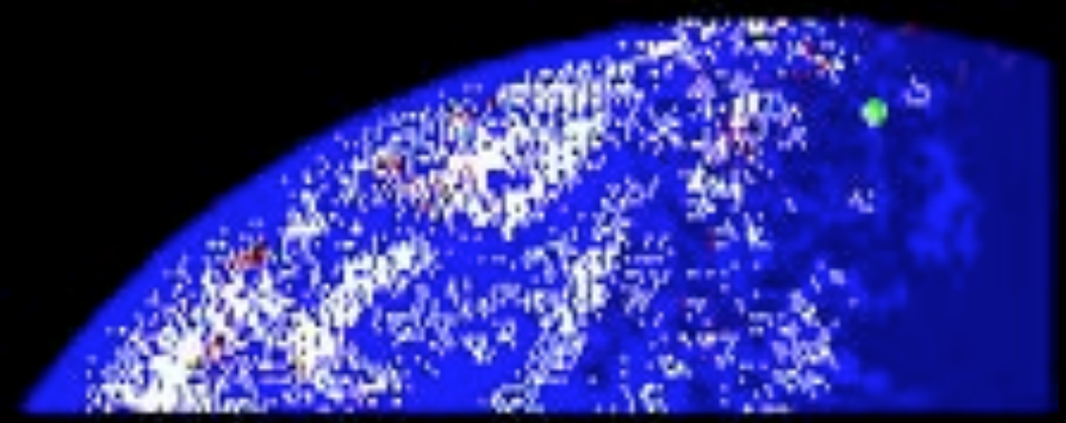
LIFE
CLASS

www.wasp.kz

PC-8800 Series
Personal Computer

The story of "WIBARM" •

This is the story
of the distant
-



Nintendo Famicom

1983

Nintendo Entertainment System

1985

1P-001000
TIME 012
GYROMITE

MARIO
000000

×00

WORLD
1-1

TIME

SUPER MARIO BROS.

©1985 NINTENDO

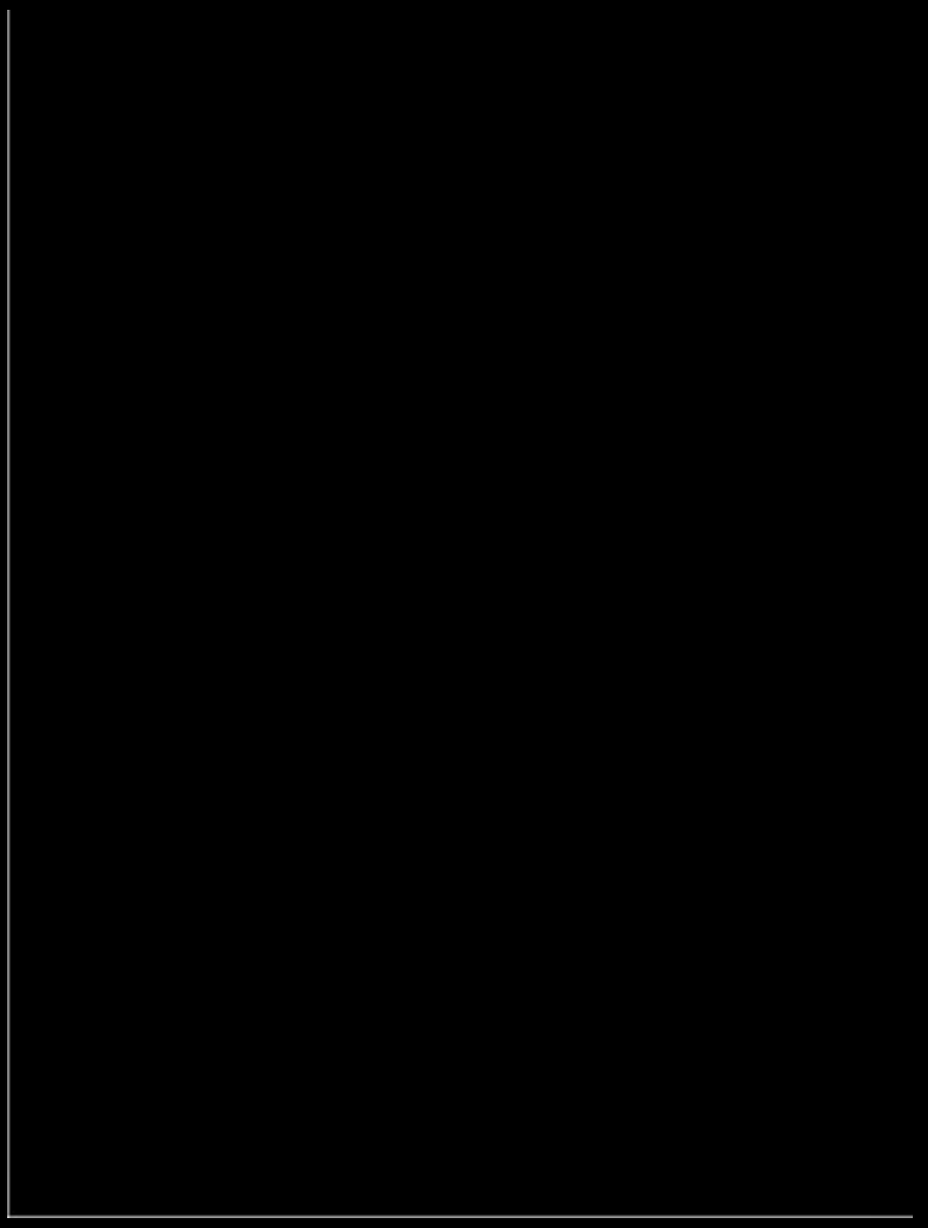
1 PLAYER GAME

2 PLAYER GAME

TOP- 000000

THE LE
ZELDA
TM
©1986 NINTENDO
PUSH START BUTTON

NEC
PC Engine
1987



NEC
PC Engine
CD ROM
1988

Castlevania
Rondo of Blood

©1994 NEC ©1989 CAPCOM

Sega
Mega Drive
1988/89

SONIC
THE HEDGEHOG
SEGA
T.M
©SEGA 1991

Super Nintendo

1990

- Nintendo -
Presents

SONY
PlayStation

Sony
Playstation
1995

CHECK
0:32.9
POS
3 OF 12
LAP
2 OF 2
LAP TIMES
1 0:44.3
0:18.2
THRUST
168 MPH
ENERGY

Lap
1/2
5th
Total Time
1:16.800
Lap Time
1:16.800
Record
--:--:--
Best Lap
--:--:--
3
153
km/h

Workbench release. 399384 free memory
System
Shell
Utilities
Prefs
Expansion
Trashcan
Clock V1.22
RAM DISK
Workbench1.3
MergeMem
SetMap
FastMemFirst
New CLI Window
Type Available In-Use Maximum Largest
chip 488256 114976 523232 485752
fast 0 516888 516888 0
total 488256 631864 1040120 485752
1> (C) BB Jan, 2086
Calc V1.3
Commodore 1084S
AMIGA

Lançamento em 1985 (A1000)

Arquitetura de 32 bits
(cpu Motorola 68000)

Agnes & Denise

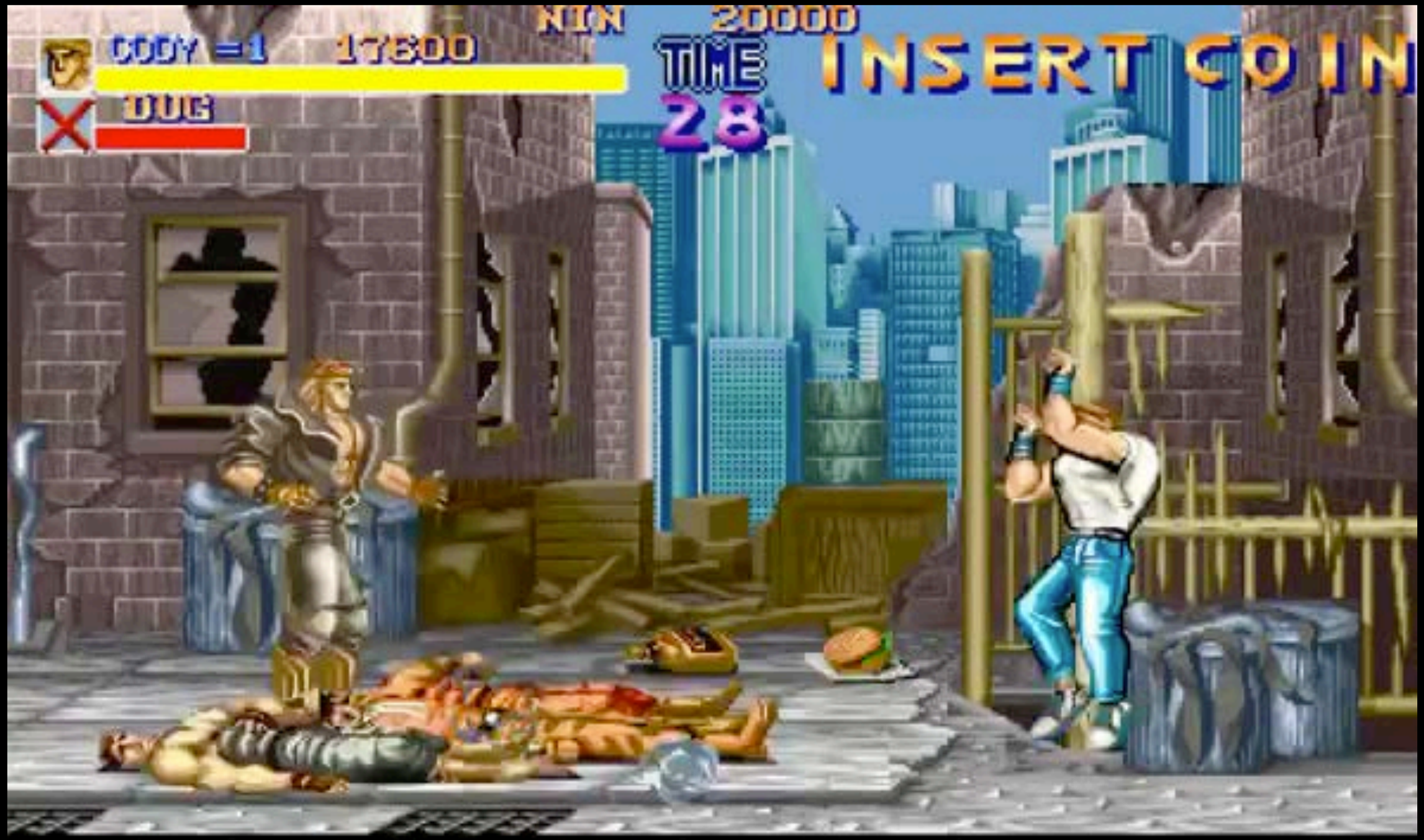
Res. 640x512
Paleta de 4096 cores

Sistema operacional multitarefa real

BBC Micro Live (1985) - Commodore Amiga Debut

Open Walk to Use
Close Pick up Look at
Push Talk to Turn on
Pull Give Turn off

100 Amiga Games in 10 minutes

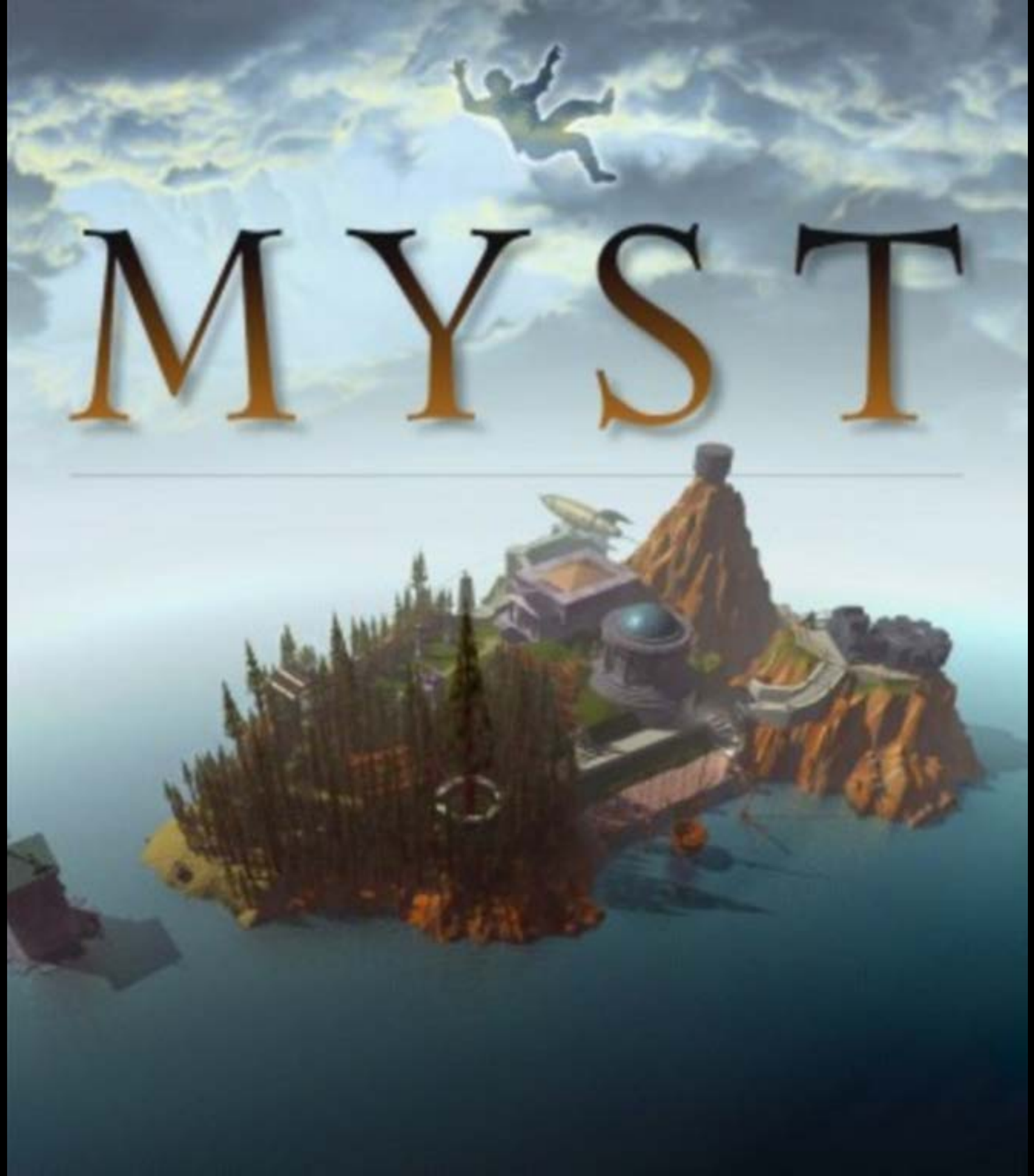


Final Fight (Capcom, 1989)

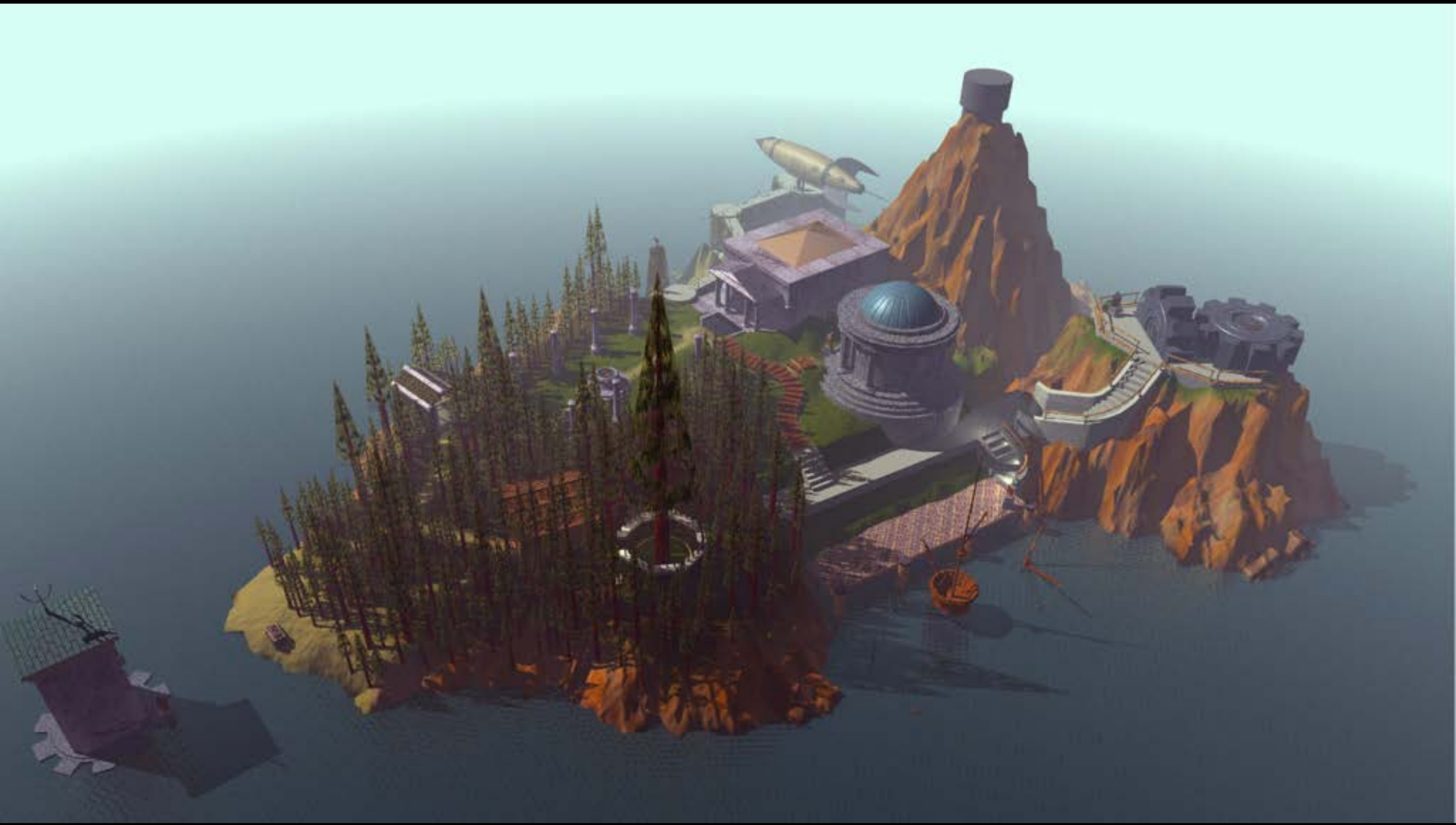
570 HI 34450
TIME 57
CREDIT 0

NIN
20000
TIME
26
GUY
PIZZ

Street Fighter II (Capcom, 1991)



Myst
(Cyan/Brøderbund, 1993)



7th Guest (Virgin Games, 1993)

DOOM
(id Software, 1993)

Dangerous Dave in Copyright Infringment
(Johan Carmack e Tom Hall, 1990)

Commander Keen Invasion of the Vorticons! (Apogee, 1991)

Wolfenstein 3D
(id Software, 1992)

DOOM
(id Software, 1993)

Virtua Racing (SEGA, 1992 / Model 1 Board 16:9)

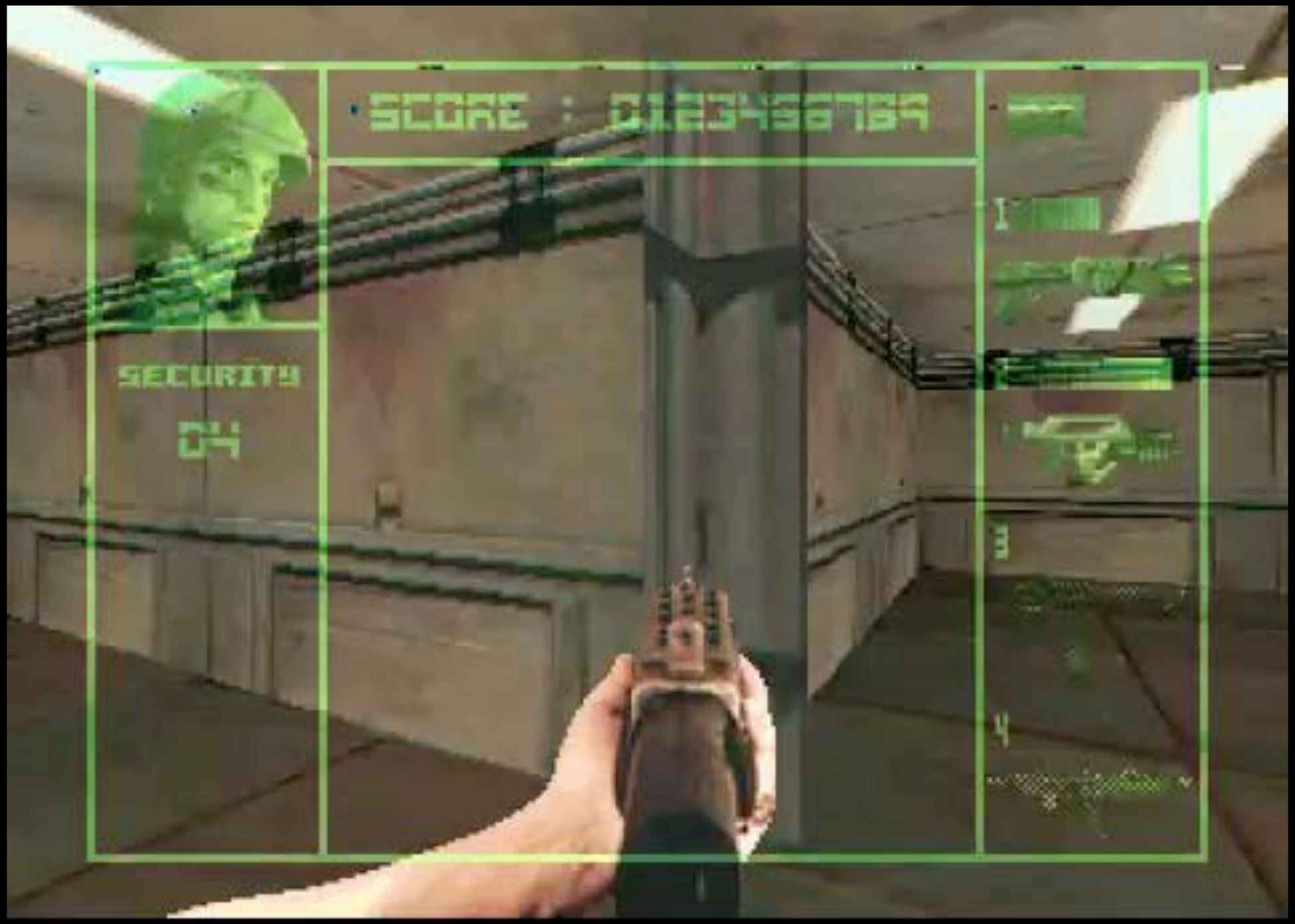
Virtua Fighter (SEGA, 1993)

JAGUAR
ATARI
64-BIT INTERACTIVE MULTIMEDIA SYSTEM
PAUSE
OPTION
A
B
C

Lançamento 1994

primeiro console 64 bits:

GPU de 32 bits (RISC) com
endereçamento de 64 bits
e um coprocessador de 32 bits (RISC)
também com endereçamento de 64.



Alien vs Predator (Atari, 1994)

Tempest 2000 (Atari, 1994)

Panasonic
R·E·A·L
Panasonic
READY
Panasonic
A
B
C

Lançamento 03/1994

3DO Company
fundada por Trip Hawkins

Hardware
RJ Mical and Dave Needle

Conceito de Multiplayer

Processador
RISC de 32bits (ARM)

Floating Point fica barato
assim que eles terminam
desenvolvimento da máquina

Máquina cara (licensiados
não entendiam o conceito
Gillete)

Crise de identidade
(multimídia? console de
games? filmes digitais?)

pack in game confuso

3DO

The Need for Speed (EA, 1995))

The Need for Speed (EA, 1995))

SEGA SATURN
SEGA
SEGA SATURN

Lançamento 11/1994

3DO Company
fundada por Trip Hawkins

Processador
Hitachi SH-2 (x2)

sucesso no lançamento por conta do Virtua Fighter, que era praticamente idêntico ao arcade e vendeu quase na mesma proporção do console.

Vendeu 200.000 consoles no lançamento, contra 100.000 do Playstation, lançado em 12/1994

Donkey Kong Country (Rare+Nintendo, 1994)

Sony
Playstation
1995

CHECK
0:32.9
POS
3 OF 12
LAP
2 OF 2
LAP TIMES
1 0:44.3
0:18.2
THRUST
168 MPH
ENERGY

Lap
1/2
5th
Total Time
1:16.800
Lap Time
1:16.800
Record
--:--:--
Best Lap
--:--:--
3
153
km/h

KRONIKA TOMB RAIDER.CZ

NINTENDO 64

Lançamento 1996

CPU: NEC VR4300 (baseada na SGI MIPS4300i

(32 bits com arquitetura de 64bits)

Desenvolvimento em parceria
com a Silicon Graphics

Mario 64 (Nintendo, 1996)

Legend of Zelda - The Ocarina of Time (Nintendo, 1998)

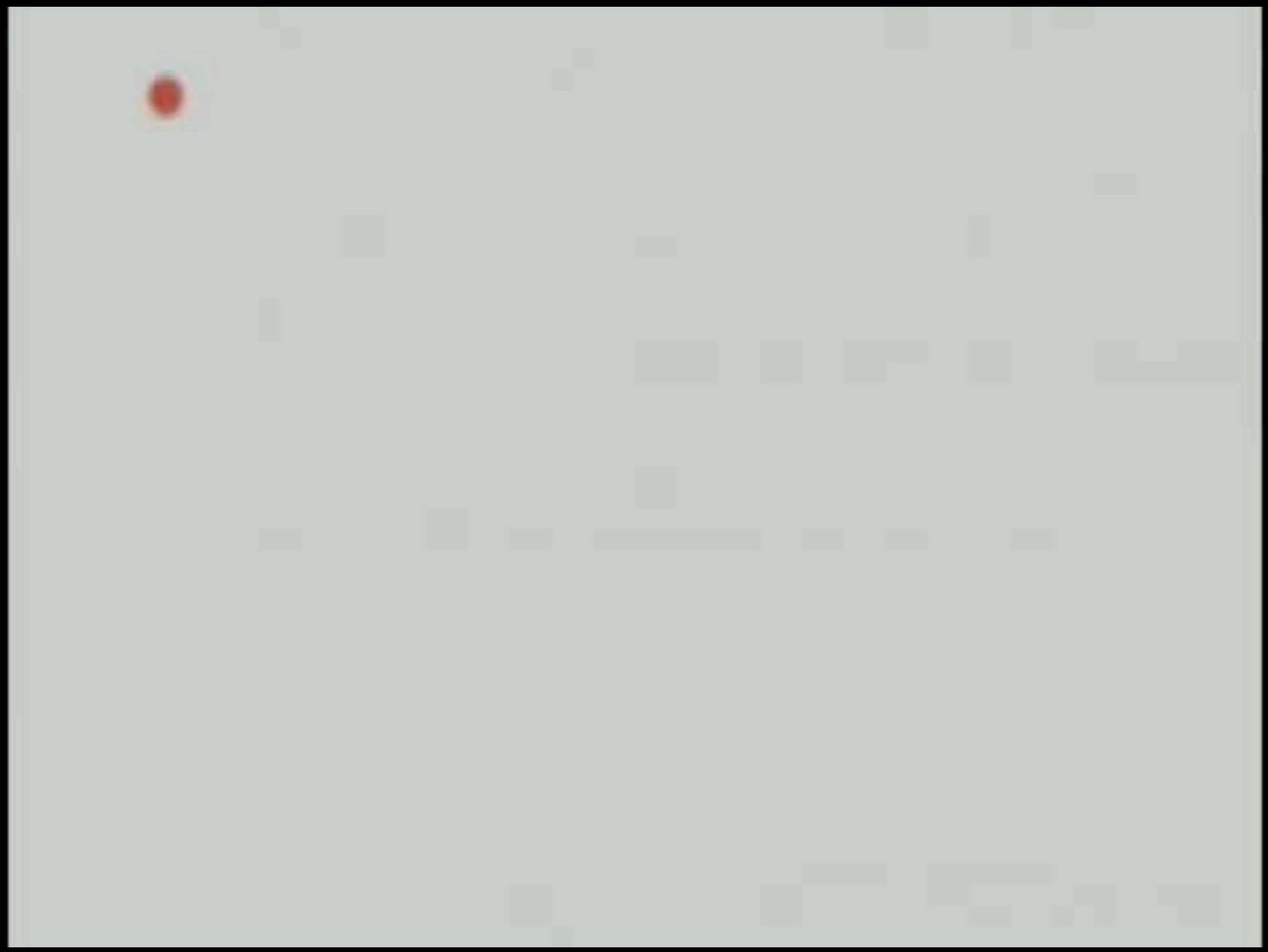
Dreamcast™

the ultimate gaming system

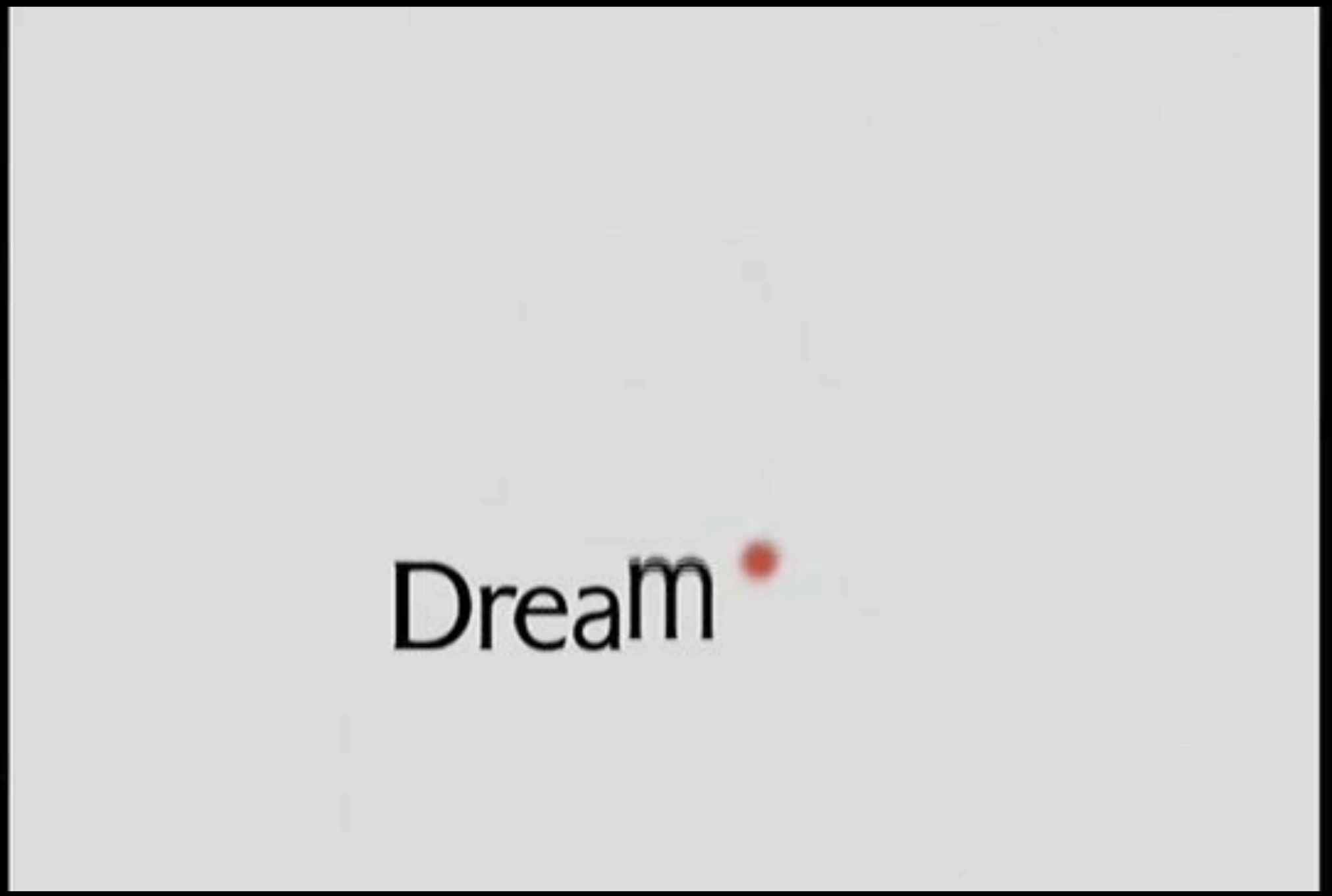
Lançamento 1998

CPU Hitachi SH-4 (32 bits)
GPU NEC Power VR2
Windows CE

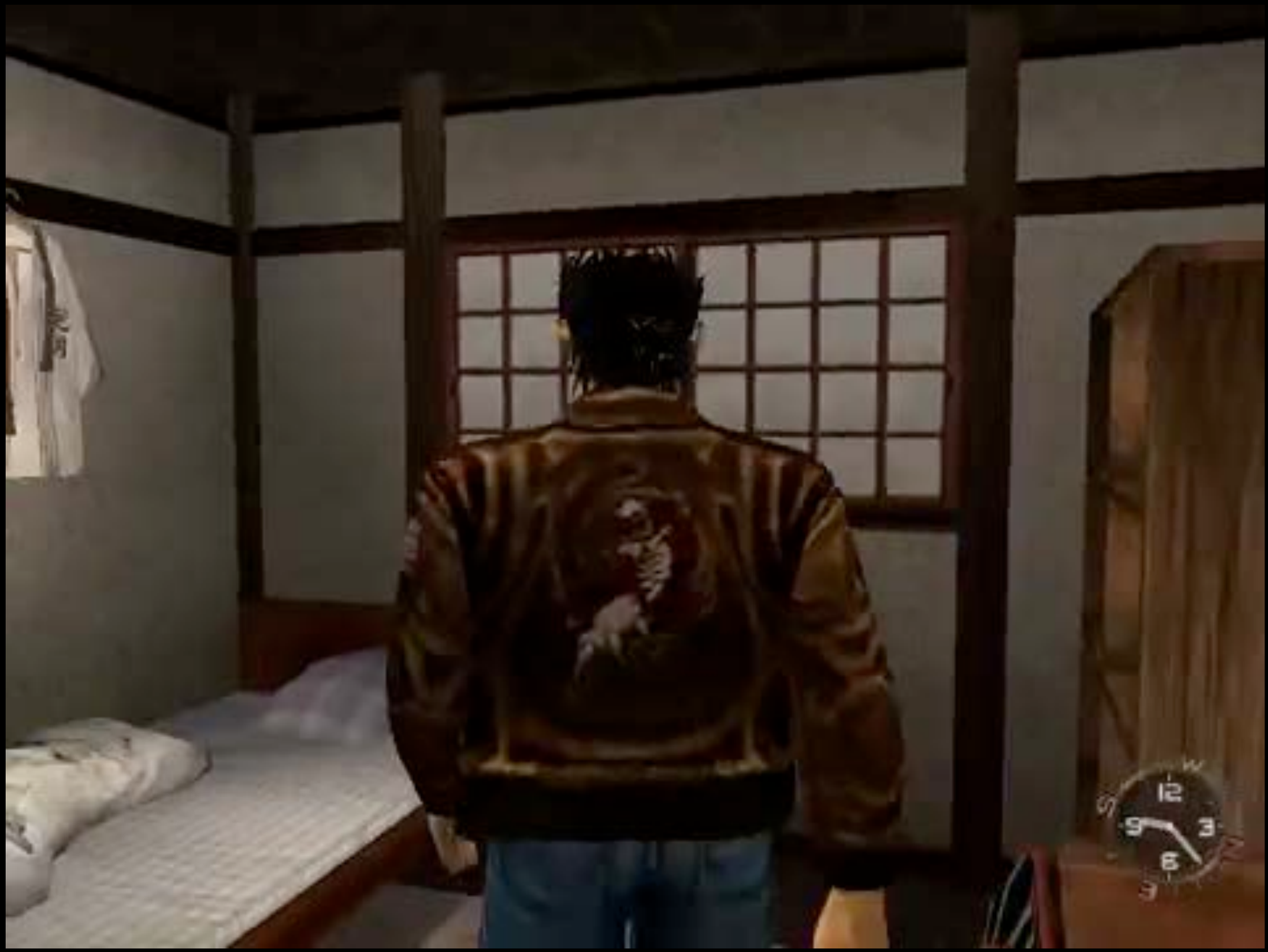
Primeiro com modem



Soul Calibur (SEGA, 1998)



Crazy Taxi (SEGA, 2000)



Shenmue (SEGA, 2000)

Sony
Playstation 2
2000

Sony
Playstation 2
2000

CPU: Emotion Engine
GPU: Graphics Synthesizer

XBOX
2001

Lançamento 2001

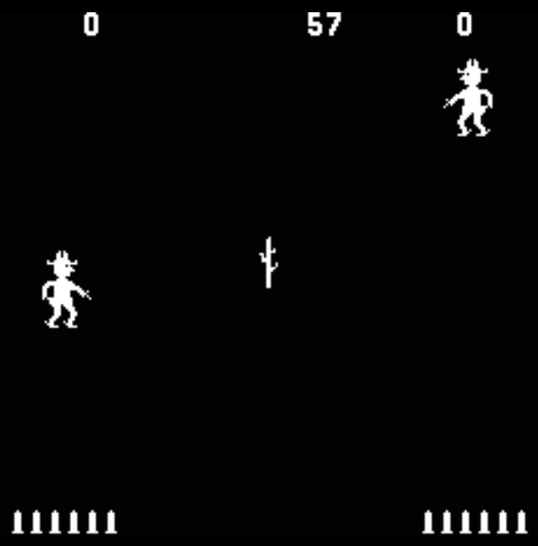
CPU: Pentium
GPU: nVidia NV2A

Windows NT

Nintendo Wii

2006

1975



Produção e Design

Produção solitária:

1 engenheiro cuidando do hardware

1 engenheiro cuidando do software

1985

Produção e Design

Pequena equipe:

1 Designer

2/3 programadores

1 músico

1995

Produção e Design

Grande equipe:

1 Designer Coordenador

4 Designers

3 Modelistas 3D

3 Programadores

1 Produtor

Pesquisadores

1 Equipe Música

1 Equipe efeitos sonoros

2007

Halo 3

+ de 120 profissionais

3 anos de produção

600 game testers

US$ 60,000,000

Desopila

o que temos hoje?

KINECT SPORTS

grand
theft
auto
FIVE

Oculus

é só um jogo?

mais antigo que a própria cultura (Huizinga)

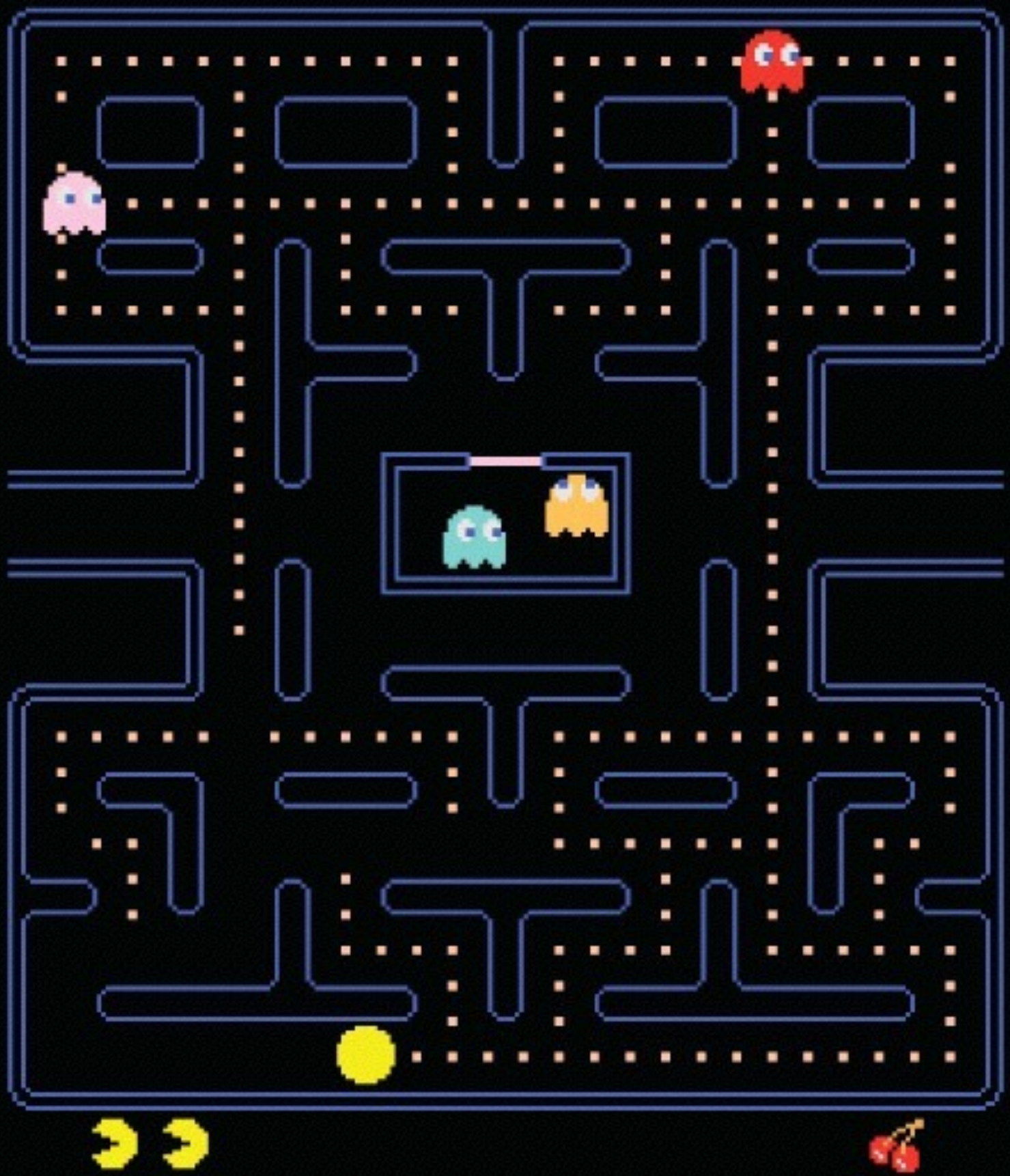
pode (e deve) ser lido de maneiras diferentes

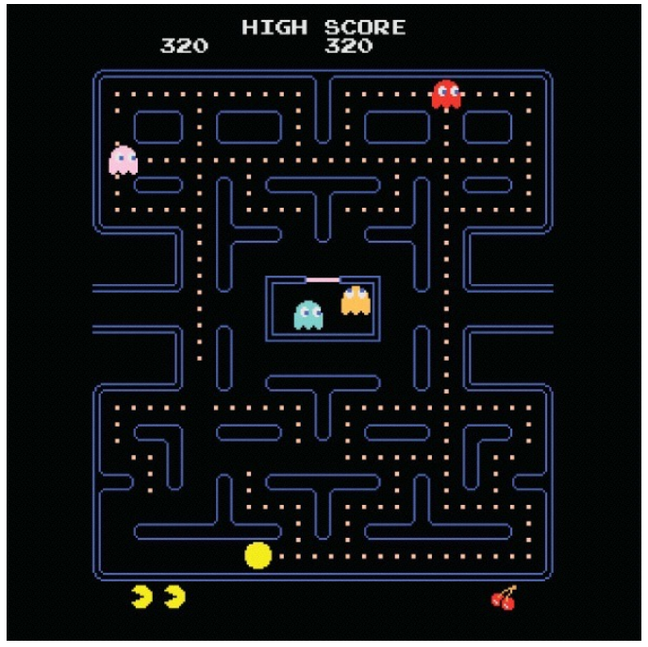
linguagem especial

mundo de irrealidade deliberada

HIGH SCORE

320 320





leitura da sintaxe visual

estrutura de labirinto tubular

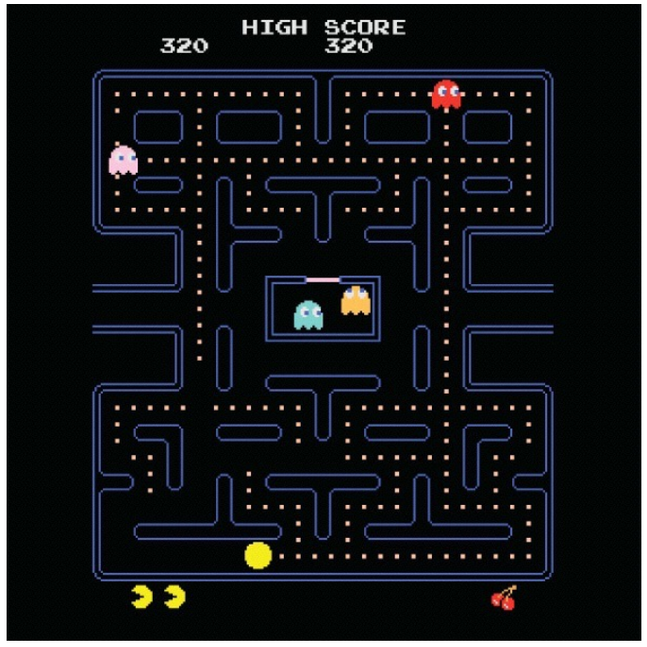
pontos espalhados de dois tamanhos diferentes

quatro pequenas figuras com grandes olhos

um disco com uma parte faltando

números acima

mais discos menores abaixo, juntos a um pequeno cacho de algo que parece cereja



leitura da representação

pontos: por que há lugares faltando?

por que dos discos?

por que há uma cereja

há uma leitura representacional?

videogames devem ser lidos

em nível simbólico porque são

sistemas semióticos complexos

HIGH SCORE
6310
6310

1. confirma que videogames são complexos sistemas simbólicos

2. explica a experiência de jogar reconstruindo o que o jogador faz automaticamente

3. seres humanos são extremamente hábeis em ler sistemas complexos sem saber descrever exatamente o que fazem

4 identificação e empatia

5 imaginar pragmático x hermenéutico

6 imaginar “como" e “estruturalmente"

“mas os videogames hoje são

hiperrealistas, tentam imitar e

simular a realidade sensível”

aluno indignado anônimo

tentam...

mas na verdade são

ciborgues semióticos

e o que ganhamos jogando videogame?